TEXAS
State Journal
of Medicine

DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH IN TEXAS

VOLUME 53 • NUMBER 8 • AUGUST, 1957

BOARD OF PUBLICATION

Robert W. Kimbro, M. D., Cleburne, Chairman
G. V. Brindley, M. D., Temple
Troy A. Shafer, M. D., Harlingen
J. B. Copeland, M. D., San Antonio
Byron P. York, M. D., Houston

•

Denton Kerr, M. D., Houston
President

•

EDITORIAL AND BUSINESS OFFICES

1801 North Lamar Blvd., Austin
Telephone: GReenwood 7-9447

C. Lincoln Williston, Executive Secretary
Harriet Cunningham, Managing Editor
E. Maxwell Jones, Business Manager
Bill E. Robertson, Advertising Manager

•

PRINTING OFFICES

1114 West Daggett, Fort Worth 1

Subscriptions: $3 per year for members; $6 for nonmembers; $7 for foreign. Single copy: 75 cents.

Copyright 1957 by the Texas Medical Association. Owned and issued monthly by the Association.

Problems of Aging

The regional Conference on Aging held at the time of the Texas Medical Association's meeting in Dallas last April served to point toward and to define many problems presented by our aging population. The conference was made possible by the American Medical Association's Council on Medical Service and Committee on Aging in conjunction with the Texas Medical Association. The combined efforts of the Texas Geriatrics Society, the Texas Gerontological Society, the Texas Social Welfare Association, the Texas Society for Mental Health, and the Dallas Council of Social Agencies for a portion of the conference demonstrated an awareness of the problems and a type of cooperation which yielded considerable benefits to all participants.

Texas' population has recently passed the 9,000,000 mark, including an estimated 600,000 persons over 65 years of age. The latter figure is presently increasing at twice the rate of the general population and is due to amount to a highly significant segment of our population in the immediate coming years. Along with these population trends there have been such sociologic changes as movements of people from rural to urban centers, fewer self-employed persons in an increasingly industrialized economy, and reduction of the family unit to parents and their own children. With these several developments over the past half century all the attendant problems of the aging population appear to demand special urgent attention now and in coming years.

The medical aspects of these trends are, in part, obvious and all of us have taken them in as part of our practice. Some are less obvious and require research and surveying for better clarification. Chronic illnesses, arteriosclerosis,

arthritis of various types, mental illnesses, diabetes mellitus, to mention a few examples, are increasing particularly in older patients. The type of hospitalization or the care in homes for patients as well as the improvement of nursing homes and the institution of visitation programs are of practical importance. At the Dallas meeting we were fortunate to have these topics and many others ably discussed by our guests, Dr. Henry B. Mulholland and Dr. Wilson G. Smillie (see Original Articles section).

The real "eye-opener" to many of us physicians is the scope of the medical aspects relative to the aging population. It is far greater than the mere diagnosis and treatment of illnesses. Take housing, for example. Proper consideration requires medical counsel not only regarding medical care, but also for design, location, adequacy in the community, and other aspects relative to the needs of senior citizens. Rehabilitation has its physical and medical aspects, with which many of us are familiar. This in turn brings us to the economic aspect, for every person who is able to care for his daily needs is that much less a burden on society. In this field of activity and in vocational rehabilitation the role of trained personnel working with medical guidance is due to accomplish a great deal—even more than some of us might have anticipated a few years ago. Of the numerous other facets such as adult education, religion, and recreation, we may briefly consider employment.

Employment for persons reaching a fixed retirement age presents a number of difficult problems. Many different attempts at solution offer some relief in some respects. But for the vast majority the proper solution is some form of continuing employment rather than automatic retirement. The economic implications of forced retirement become obvious as we find fewer and fewer of us providing for more and more of us. And from the mental health standpoint nothing has more salutary effect than continued employment. For these obvious reasons our Texas Medical Association's Committee on Problems of the Aging offered a resolution favoring flexible retirement, which was adopted by the House of Delegates in Dallas.

What are we in Texas doing concerning these many problems? Last November a survey of organizations and committees on aging over the southern states revealed Texas well up on the list. There are also the many regional and local activities over the state and opportunities for far greater development at this level. The recent survey of facilities and services available to elderly people carried out by a committee of the Texas Geriatrics Society gives valuable, detailed information which is available in the Original Articles section of this *Journal* for each member of the Texas Medical Association.

An outstanding feature of the recent conference in Dallas was the open request of the sociologists, social workers, economists, educators, clergymen, and others for leadership by the medical profession. The request was earnest and the expression of gratitude for progress thus far demonstrates a remarkable opportunity for physicians to assume active leadership in the broadest sense in working with the problems of the aging population. The great benefits which can come to us individually and collectively as a profession in personal and public relations make it imperative for each of us to educate himself as to the problems before us and to work with and direct the nonmedical personnel who are already doing so well with the problems of aging. It is an opportunity for cooperative effort which none of us should miss.

—WENDELL D. GINGRICH, M. D., Galveston.

Bexar County Complaint Receives AMA Backing

It is gratifying for the physicians of Texas to know that their individual voices can be heard nation-wide. It was proved recently that when a legitimate complaint is properly pre-

sented by a physician or group of physicians to the American Medical Association, it receives very thorough and fair consideration. Only in this way may individuals and county medical societies be heard.

Bexar County physicians had a legitimate question regarding an encroachment on the private practice of medicine by Kelly Air Force Base. The complaint—that the base sponsored yearly physical examinations for Civil Service employees at taxpayers' expense—was presented in the form of a resolution by the Bexar County Medical Society to the Texas Medical Association House of Delegates in 1956. The Texas delegation to the American Medical Association in turn presented the resolution to the national medical policy-making body, which called for a complete investigation, including an on-the-spot survey of the situation in San Antonio, and a report of the findings at the 1957 meeting.

In June, the AMA House of Delegates acted on the report (details of which may be found in the Medical News section of this *Journal*), pointing out again that every doctor plays an important part in the AMA through the grass roots of American medicine.

What's Happening In Medical Education

The problems of medical education, as in practically all other types of education, have increased tremendously within the past few years, and the outlook continues to be one of more and more students, more and more schools and teachers needed, and more and more money necessary to pay the bills.

In 1953, there were 79 accredited medical schools in the United States, but by 1956 there were 82, and plans are afoot for additional schools in Texas, Arizona, Connecticut, Kentucky, Massachusetts, and Pennsylvania. During 1956, these 82 schools trained 11,000 graduate doctors, residents, and interns, and gave refresher courses to 17,000 physicians. They taught 27,000 undergraduate medical students, graduated more than 6,500 doctors, and gave instruction to 16,000 dental, pharmaceutical, and nursing students plus 8,000 non-medical students. They furnished leadership and counsel for health agencies and provided 2,000,000 people with free medical care valued at $100,000,000. They also gave short courses to 47,000 family doctors, hospital staff members, and other medical personnel, and conducted research projects costing $32,000,000.*

Who pays? Last year, tuitions accounted for only 18.2 per cent of the total cost of basic medical school operating budgets. The rest came from private and government support. In Texas alone, the American Medical Education Foundation, which gets its money from doctors, gave $30,273.84 to medical schools. The Texas Medical Association's Committee for AMEF raises funds for the foundation, and during 1956, Texas physicians contributed $20,145.44. These gifts are, of course, tax deductible and may be earmarked for a particular medical school.

The Woman's Auxiliary to the Texas Medical Association has been particularly active in work for medical education. More than $10,000 from the sale of specially designed Christmas cards last year was donated to AMEF, and was divided equally among the three Texas medical schools. This year, the Auxiliary has set a $20,000 goal (see related story in the Auxiliary section). Another Auxiliary project is the student loan fund, which is available for junior and senior medical students, interns, and residents who are Texas citizens.

To compete with other scientific careers, medicine must offer young people the finest possible training at a cost not prohibitive to the majority of qualified students. Furthermore, as the population continues to increase, the number of practicing physicians must increase in order to provide adequate medical care. Medical schools in Texas already are over-

*The American Medical Education Foundation, New York State J. Med. 57:204-205 (Jan. 15) 1957.

crowded, and can graduate only about 320 students a year. A report on this situation appears in the news section of this *Journal.*

The proposed new medical branch of the University of Texas, to be located in San Antonio, appears to be a forward step, but doctors still must take advantage of every opportunity to insure that future medical education will adhere to the highest standards of the profession.

Godspeed, Dr. Blasingame

For 20 years, F. J. L. Blasingame, M. D., has been a hard working general practitioner and surgeon in Wharton. During that period, he has become increasingly convinced through participation in county, state, national, and international medical societies that a strong, active organization is vital to his profession and the people it benefits. Now, having held high elective office at almost every level, he has accepted full-time work as general manager of the American Medical Association, in which position he will serve and help direct the activities of 140,000 doctors of medicine.

The Board of Trustees of the AMA has named Dr. Blasingame general manager effective January 1, at which time Dr. George F. Lull, who at age 70 has held the post for more than 10 years, will become assistant to the President, a new office.

Because of his broad, yet intensive experience in AMA matters (last year he was away from home 128 days and traveled more than 60,000 miles, much of it on AMA business) undergirded by personal knowledge of private medical practice and medical associations at the local level—plus his inherent abilities and pleasing personality—Dr. Blasingame goes to his new job well equipped. His competence, integrity, and devotion to the cause of good medical care can mean only success.

While mourning his loss to this state, his colleagues are proud that a Texan of his caliber is willing to step into the office at 535 North Dearborn Street in Chicago, which is strategic to the continued sound development of medicine throughout the nation and indeed the world.

★ Current Editorial Comment

$1,000,000 from Medicare Received by Texas Doctors

One million dollars had been paid under the Medicare program to doctors in Texas on July 29 by Texas Blue Shield, which has been acting as administrative agent for the Texas Medical Association. This amount represents care given in approximately 13,300 cases.

Public Law 569, Eighty-fourth Congress, went into effect December 7, 1956, enabling dependents of the uniformed services for the first time to obtain certain limited services in civilian hospitals from civilian doctors at government expense. The government prior to this law had assumed some obligation for care of most of these dependents in military facilities. While this is still government provided health care, the difference is that now care, within certain limits, can be obtained in *civilian* hospitals and from *civilian* doctors. It is also argued that this has reduced the demand for more and bigger military hospitals and for the doctors needed to staff them.

Practically every law passed by Congress has to be implemented by regulations and directives and the Medicare program is no exception in this respect. There have been 16 directives from Washington concerning the Medicare program, some of which contradicted or changed previous ones. In May, Blue Shield mailed to all Texas physicians a "Supplement to the Medicare Manual" which incorporated and sum-

This department of the JOURNAL *presents editorial comments on current items pertaining to the science, art, and practice of medicine, contributed by members of the Texas Medical Association and scientists closely associated with the medical profession of Texas. Invitation is hereby extended to any member of the Texas Medical Association to submit such discussions for this department. The discussions should not be more than 500 words in length.*

marized the changes in the program since its inception.

One important change was received after the supplement was printed. This change was to the effect that identification cards need not be presented by dependents until January 1, 1958, instead of on and after July 1, 1957, as previously planned, in order to entitle them to services. It is impractical to notify all Texas physicians of any and every change or ruling from Washington on the Medicare program, as they occur. The cost of printing and mailing is nearly $1,000 each time. Also, not every change or ruling affects all physicians. Nevertheless, Blue Shield will make every effort to keep Texas physicians informed of important changes in the program at the earliest practical moment.

There appears to exist in the minds of many physicians a basic misunderstanding of the role of Blue Shield in the Medicare program. Blue Shield is acting solely as administrative agent for the Texas Medical Association. It did not write the rules and regulations and cannot change them. Blue Shield pays out its own money on claims from doctors and then has to look to the government for reimbursement, which can be expected only if claims have been properly completed in exact accord with regulations. This, and this only, is the reason why many claims have to be returned to physicians for completion or correction. The irritation caused to the physician whose claim is returned is entirely understandable, but does not change the basic requirement of following the regulations established for the program.

Many doctors complain of the complicated nature of the form DA 1863. The government has been concerned about this problem, and an effort is under way to improve this form which probably will result in different forms for hospitals and doctors.

Blue Shield receives as compensation for its services, as administrative agent of Texas Medical Association, only its reimbursable costs as defined by the government. It had been hoped that some good will would be created by Blue Shield's carrying out the role assigned to it by the Texas Medical Association. Indications are that in many instances the contrary is true since many physicians are blaming Blue Shield for things about the Medicare program which are wholly outside the scope of Blue Shield's activity in the program.

Doctors who do not wish to participate in the Medicare program still have this choice open to them. Those who do participate will assist themselves if they learn the limitations of the program and the regulations which the government has said must be followed to permit payment under the program.

—W. R. McBee,
Dallas, Texas.

♦ Mr. McBee, Executive Director, Blue Cross-Blue Shield, 2208 Main Street, Dallas.

September 7 — Austin
Texas Medical Association

PUBLIC RELATIONS CONFERENCE **INDOCTRINATION PROGRAM**

Guest Speakers:
Leo Brown, American Medical Association, Chicago
Dan J. Forrestal, Public Relations Society of America, St. Louis
Melvin Munn, Blue Cross-Blue Shield of Texas, Dallas

September 8
EXECUTIVE COUNCIL MEETING
Details in Organization Section

President's Page

CAN PUBLIC RELATIONS BE BOUGHT?

Every employee of a physician reflects to some extent the personality or the service of the doctor he represents. But he cannot carry the responsibility of keeping sick people satisfied. The efficient secretary will do her utmost to see that the patient gets an appointment at a suitable time; she will greet the patient in a friendly manner; she will see that there is a minimum of waiting and that the office is as pleasant and comfortable as possible. The alert nurse will be careful, cordial, and courteous in all her dealings with the patient. But it is the personality, skill, and thoughtfulness of the doctor that will determine whether a given individual will admire or despise the medical profession. A careless word, rough treatment, lack of sympathy, or hasty instructions can make enemies for the healing arts far more rapidly than armies of public relations people can make friends for them.

Each year we hear more and more about hiring public relations experts to help with our many problems, which seem to become greater and greater. I think the cry for experts for the medical profession is partially due to the malicious attacks made upon physicians in recent years by left-wing do-gooders who seem to want everything in America changed. Another reason is the all too prevalent idea of today to "let George do it." George has done a remarkable job at public relations in many fields, but there are a few things we should not depend upon him to do.

I believe it would be far more difficult for a layman to insert himself between the physician and the people of this country and bring about more cordial relations than it would be for a third party to do the hiring and the bill paying.

When the United States government, industry, hospitals, or insurance companies hire physicians and pay the bills, the doctor-patient relationship is being weakened. I believe the more we depend upon the experts to do our public relations job, the farther apart the profession and the laity will drift.

A few weeks ago, Dr. Sam J. Morrow died in Inman, S. C. He was one of two doctors practicing in this little town of 5,000. He had practiced there for 30 years. Yet, he was scarcely known outside of this village. The next day, the following tribute was paid to him by the *Times,* the local newspaper.

Every heart in this little town and surrounding country-side weeps over the death of our beloved friend and doctor Samuel Jerome Morrow.

It would be difficult to find a family in this territory in whose home he has not visited during the small hours of the night—watching over some sick child or mother who needed him.

The confidence his patients felt in him acted as an antibiotic for all their ills. The moment he entered a sick room—the tension seemed to lessen and anxiety seemed to fade away. He was never in a hurry—never too busy to come when he was needed and never questioned whether or not the bill would be paid.

. . . . His interest in his patients was something greater than professional. He had a deep personal interest in everything that touched the lives of those with whom he came in contact.

He loved his family and they shall be protected by the happiest of memories. He loved his church, his profession and his community and was loyal to each of them. It can be said of him as was said of old in regard to the Great Physician, "He went about doing good."

. . . .

Not long ago a faithful colored servant in this community, whose home is one of several in a row of tenant houses, received a letter from Dr. Morrow which stated, "When you call me during the night, keep your outside light on so I can find you."

If those of us who are left behind could speak to him up there in that haven of rest I am confident that we would say as he did, "Keep your light on so we can find you."

Certainly a lot of public relations are still being bought by an unselfish devotion to duty, unrelenting efforts to conquer the pains and illnesses of humanity, an abiding faith in the Great Physician, and a deep humility toward the limitations and frailties of our own greatest efforts.

Denton Kerr

ORIGINAL ARTICLES

Things of Good Report

The American Medical Association in Action

F. J. L. BLASINGAME, M. D.

Wharton, Texas

Dr. F. J. L. Blasingame, member of the Board of Trustees of the American Medical Association, represented the AMA in presenting this address at a general meeting of the Texas Medical Association during its annual session in Dallas, April 29, 1957.

The medical profession is strong because of the positive, constructive things it does. A random selection from the many and varied services of the American Medical Association suggests the significance of this organization's activities in American life.

IN THE PAST, I have been guilty of a practice which I have criticized in others—yielding to the temptation of discussing the things that are *wrong* rather than the things that are *right*.

While I do not deny that American medicine has its shortcomings, I am convinced that our profession is strong because of the positive, constructive things it does. I believe it is unfortunate that so few members have an accurate concept of the tremendous influence of the American Medical Association and its significant role in American life. The AMA is a great service organization. I shall attempt to pick at random a few instances that indicate the variety and extent of its activities.

SCHOOL HEALTH

For the past 47 years, the AMA has worked very closely with the National Education Association on problems relating to the health and physical fitness of American youth. The Joint Committee on Health Problems in Education, composed of five representatives from each organization, has sponsored many studies on health problems relating to children as well as the physical elements of the school plant. Hardly a child in school today has not been affected by the joint committee's program. In addition, the AMA sponsors biennially a Conference on Physicians and Schools for representatives of education, public health, and medicine to discuss mutual problems.

These two AMA programs have contributed significantly to our Association's prestige in the eyes of the teaching profession and brought American medicine many comments of good report. These programs are only a small part of the vigorous activities of the Bureau of Health Education.

LIAISON WITH GOVERNMENT

Not many years ago, the federal government rarely called on AMA for advice on health and medical care problems. Today that situation is no longer true.

POLIO CAMPAIGN

Although much might be said regarding the method of introduction of the Salk vaccine, it is worthy of comment that in recent months the AMA was responsible in taking the initiative to get the public to take the shots.

So widespread was the response that the backlog of 27,000,000 cc. of vaccine was used up, creating a shortage.

The American Medical Association's committee, headed by Dr. Julian Price, recommended to the Surgeon General of the United States Public Health Service that "a federally-operated allocation system for polio vaccine is not necessary to achieve an equitable distribution." Furthermore, the AMA stated that "the vaccine should be distributed equitably on a voluntary basis between commercial outlets and public agencies." These recommendations were accepted as a U. S. Public Health Service policy.

This program, then, is an example of medicine and government—working together to solve mutual problems of benefit to an entire nation.

CIVIL DEFENSE

For a number of years our Association has actively supported civil defense planning, especially in encouraging medical societies and physicians to assume the responsibility for leadership in those areas directly related to medical preparedness. Recently, the Federal Civil Defense Administration approached the Board of Trustees with a request that the AMA initiate a study to establish criteria for the medical care of surviving noncasualties as well as to consider problems of public health and sanitation that would be present in the event of an enemy attack on this nation and to make a survey of existing health facilities.

It was estimated that this joint field study would take from 12 to 18 months to complete, and the cost—estimated to be about $150,000—would be financed by the FCDA.

The cooperation of the American Medical Association with the Federal Civil Defense Administration in conducting a program of this magnitude involving

Fig. 1. Civil defense, the subject of this exhibit, is an area in which physicians have been encouraged to assume a responsibility for leadership.

the expenditure of federal funds may appear to some to be inconsistent with the Association's long-standing policy of not requesting federal grants to carry on research projects in the field of health and medical care.

The Board of Trustees discussed this point extensively. In the final analysis, it was recognized that our participation in this particular project differs on three specific points:

1. The FCDA came to us with the request that the AMA conduct this pilot study.

2. This matter involves the national security of our country. As such, the Board felt that it would be unpatriotic for the country's major medical association to refuse to cooperate with the FCDA on a medical problem related to civil defense.

3. It would be entirely impossible for the AMA to conduct this type of research project on its own—impossible because the very nature of the problem necessitates access to classified material otherwise unavailable unless the study were done in cooperation with a federal agency.

MEDICAL EDUCATION

Another contact with government can be found in the 479-page "Medical School Inquiry . . . Staff Report to the Committee on Interstate and Foreign Commerce, House of Representatives, Eighty-Fifth Congress." On July 10, 1956, the House Committee on Interstate and Foreign Commerce directed its staff to gather all possible information bearing on the subject of federal aid to medical schools. In transmitting the report to Congress, Oren Harris, chairman of the committee, expressed the committee's appreciation for the cooperation and assistance received from the AMA. As a matter of fact, practically all of the information in our Council on Medical Education and Hospitals annual report on medical education in the United States is incorporated in this "staff report."

It is encouraging to know that congressional committees are looking to the AMA for statistical information where, in the past, they have depended on less reliable sources.

LOBBYING

Since I have mentioned our liaison with certain government agencies, I thought perhaps you would be interested in comments concerning the AMA and its lobbying activities contained in a book* (Citadel; The Story of the U. S. Senate") written by William S. White, chief congressional correspondent for the *New York Times.*

Mr. White says:

> Many professional political observers, perhaps using different measures, offer many different answers to the question as to which is the most effective of all lobbies. My own experience has suggested that the most triumphant lobby of all in the defensive sense—in maintaining roughly the *status quo*—is that of the physicians in the American Medical Association. The fact is that for a generation the Senate has shied away from or actively rejected innovations in the field of public health that would be regarded as quite tame and far from desperately "socialistic" in the similar field of education.
>
> Among the probable reasons for this success of the medicos with the Institution is that at heart it is more sympathetic to professional men than to any other class except another quite traditional one, the farmers. Another is the strong, half-instinctive belief among Senators that doctors

**Published by Harper and Brothers, New York, and quoted by permission.*

will (or ought to) tend to express the *suitable* and lasting attitudes of a community rather than the unsuitable and the transitory. Finally, there is a Senatorial view, factual or founded on legend as it may be, that doctors are more influential than all others (except possibly priests in a Catholic area) in developing important public thought. (A genuine test of this theory would be interesting. It probably arises from the tireless propaganda of physicians themselves.)

OTHER LIAISON

I want to point out AMA liaison efforts with a variety of different organizations in industry and related health fields as part of this "good report."

SEARS ROEBUCK FOUNDATION

I think most of you are familiar with the work of the Sears Roebuck Foundation and its "Plan of Assistance." Since the inception of this program two years ago, 52 physicians in 18 states have been granted loans totaling $261,000 to assist them in financing the establishment of a practice. Since last December, 116 applications for loans have been received and are now being processed. The foundation's medical advisory board will meet May 31 to make its recommendations for the allocation of an additional $80,000.*

In addition, the foundation has just announced its plans to prepare a manual on sound business procedures to follow in the practice of medicine. This manual will be available through state and county medical societies and the AMA.

MEDICOLEGAL CONFERENCES

An example of the way in which medicine solicits the good will and support of other professions in working out mutual problems is the medicolegal symposiums sponsored every two years by the AMA in cooperation with local bar and medical associations. The 1957 symposiums presented at Atlanta, Denver, and Philadelphia stressed the importance of cooperation between the legal and medical professions, particularly in the reduction of traffic deaths through acceptance and use of chemical tests for intoxication. A mock trial presentation highlighted these doctor-lawyer meetings.

Fig. 2. Mock trials during medicolegal conferences create a better understanding of the roles of doctor and lawyer. The degree of intoxication of a driver involved in an accident is being determined here.

**When the board met, $100,000 was authorized for loans.*

AMERICAN MANAGEMENT ASSOCIATION

Several weeks ago, Dr. Leonard Larson, a member of the AMA's Board of Trustees, was asked to address a meeting of the AMA in Chicago. The initials "AMA" in this latter case refer to the American Management Association. The cost of medical care was the topic Dr. Larson was asked to discuss.

With the rapid growth of voluntary health insurance—particularly in the industrial field—you can appreciate management's interest in medical care costs and our interest in placing them in their proper perspective with the cost of all other goods and services.

The accompanying illustrations will give some idea of how Dr. Larson handled the subject.

Here again is another example of our Association reaching out to other groups throughout the United States and telling medicine's story.

EVEN FOR ONE

Tooting our own horn sometimes is necessary—even for doctors! I would like to give a good report on how this is being done by the American Medical Association. In response to a dictate of the House of Delegates to highlight the importance of skill, knowledge, and judgment in medical practice, the Association produced a 28-minute dramatic film entitled, "Even for One."

In one scene, Dr. Austen tries to convince a mother that he is advising a wise program for her son. Let me quote a portion of the conversation:

"Ella, what is it you think you buy when you ask for my services? . . . When you call me to your side to help you or your husband or your son, you are buying what it has taken me all my life and training to learn . . . you are buying my skill, my art, perhaps—but most of all my judgment . . ."

This film has been well received and widely used, having been shown thus far to more than 100 television audiences.

MAGAZINE RELATIONS

AMA services have had considerable influence in the popular magazine field over the past four years. The Association's magazine relations program serves

Fig. 3a. Personal expenditures for all aspects of medical care by the American people in 1955 ($11,272 million) were only 4.4 per cent of total personal consumer expenditures ($253,971 million), a percentage that has stayed almost steady since 1930.

b. In 1955 the American people spent more than $13 billion on recreation (almost $2 billion more than on all medical care) and more than $9 billion on alcoholic beverages (almost 50 per cent more than on physicians and hospitals).

c. From the base period of 1935-1939 to 1955, the entire consumer price index increased 91.4 per cent. The cost of all commodities rose by almost 105 per cent, while all services increased by just less than 80 per cent. Medical care and drugs rose less than 78 per cent, and physicians' fees alone, less than 66 per cent.

more than 200 editors and writers each year. The popularity of health and medical articles appearing in magazines of over a million circulation is certainly indicative of public interest. Last year 390 articles on medicine and health appeared in these general circulation magazines. A careful analysis reported each week in the *JAMA* has revealed that less than 5 per cent of the articles could be classified in any way as derogatory to medicine.

This result does not just happen but is brought out by careful liaison which has been established to maintain this high "batting average."

Occasionally, bad articles will appear—but it is important that we take into consideration the over-all contributions of this medium. It should be considered an instrument of good effect and not condemned for a few bad articles.

The American Medical Association has been much more successful by practicing preventive public relations in this field rather than by expressing criticisms after an article has been published.

PLACEMENT SERVICE

Not too long ago, the medical profession was on the block in the public press with reports of so-called doctor shortages and inadequate supply of medical service.

To meet this criticism, a stepped-up program of physician placement at both the national and state levels was instituted. Today, as a result of the implementation of this program, the "good report" is that 43 state medical societies now offer placement assistance. The AMA placement service acts as a clearinghouse for relaying requests for physicians desiring a place to practice and for communities in search of a doctor.

Fig. 4. Placement services for physicians have meant better medical care for communities throughout the land.

As a little aside, I want to say that I have been requested to offer AMA's congratulations on the fine job being done in Texas, which has one of the most active placement services in the country. Our recent survey on the distribution of physicians in Texas is the only formal survey of this type to be completed by a state society.

MEDICAL QUACKERY

Even though it looks as if American medicine is waging a winning fight *for* better distribution of doctors and medical care, our battle *against* medical quackery is never ending. Our Association has played a significant role in the educational campaign to warn the general public against charlatans and medical quacks.

It is pleasing to note that the Food and Drug Administration is taking action to curtail quackery and has taken a stand against the Hoxsey Cancer Clinic. The FDA's most effective piece of literature to date has been the "Public Beware!" poster, which may be found in thousands of post offices and other public buildings throughout the country. This poster has been reproduced in the *Journal of the AMA* in the hope that many physicians will place this poster on their office bulletin boards.

EXHIBITS

Hundreds of thousands of Americans each year pass by one of our Association's health exhibits on display at state and county fairs, home shows, or one of the many health fairs being sponsored coast-to-coast.

The American Medical Association has long considered that one of its primary functions is the presentation of authentic health information to the public. The Bureau of Exhibits maintains an extensive library on exhibits on subjects ranging from alcoholism and the drinking driver to exhibits of the various organs of the human body. One popular exhibit, "Life Begins," presents the dramatic story of the miraculous beginnings of life and features actual human fetuses embedded in clear plastic blocks. All of these exhibits are available on a loan basis to any medical society interested in carrying on a worth-while community service by sponsoring a booth at a local fair or organizing a show devoted to health.

SCIENCE FAIRS

There is a growing interest in science among our young people.

This year thousands of high school science students from all parts of the country spent countless after-school hours pouring over test tubes, microscopes, and glue pots preparing elaborate—and highly informative—exhibits for display at local science fairs.

In accordance with a resolution passed in June, 1956, by the House of Delegates, the AMA has undertaken again, as it did last year, active participation in this constructive program to encourage the youth of our nation to take a serious interest in the field of science as a career.

More than 250 student finalists from 126 regional science fairs will compete for national honors May 9-11 at Los Angeles. At that time, a special committee of the AMA will present two "first" and two "honorable mention" awards to the four students judged to have the best exhibits in the basic medical science classification. In addition, the AMA will be host at a banquet in the Biltmore Hotel to approximately 800—including exhibiting students, their teachers, fair officials, and newsmen from newspapers that sponsored local science fairs. Moreover, AMA again will invite the two top winners to exhibit at the AMA meeting in June in New York City.

OTHER PROGRAMS

This presentation is incomplete; but it will serve to point out various aspects of the work of the AMA. No mention has been made of the work being done through a joint committee for the mutual benefit of the medical and pharmaceutical professions; cataloguing of professional records; publication of the *JAMA*, the nine specialty journals, *Today's Health*, "Standard Nomenclature," "Index Medicus," and the "Directory"; workings of the scientific councils (pharmacy and chemistry, physical medicine, etc.); Council on Medical Service with seven subcommittees; Council on Medical Education and Hospitals (intern and residency training programs, etc., and Congress on Medical Education and Licensure); Council on Industrial Health; Council on Rural Health and its educational program in cooperation with the Committee on Pesticides; Washington office; and many other programs.

FINANCING

The annual budget of the American Medical Association is about $11,000,000. This amount comes from return on investments, profits in operation of our publications, and dues ($25 per year—$10 for operating expenses and $15 to cover subscription to the *JAMA* or one of the specialty journals).

I believe that any reasonable and informed observer will agree that members of the AMA get their money's worth.

SURVEYS

Before closing, it is worthy of mention that the leadership of the AMA is continuously attempting to evaluate its policy positions as they affect the medical profession and the public.

Last year, a survey of public opinion was made to determine what Americans think of the medical profession and medical costs. A study also was made of opinion held of the AMA and the *JAMA*

Fig. 5. Surveys help American Medical Association leaders keep up with trends and opinions, including those of the public toward the medical profession.

by the profession and by advertisers. Such studies prove very valuable and give accurate information as to trends and opinions. With accurate information at hand, problems become more clear-cut and their solution more apparent, assuming there be a solution.

BOARD OF TRUSTEES

No report that I might make to you of this nature would be complete unless I said something about the Board of Trustees of the American Medical Association.

It has been my privilege to serve on this board for the past eight years. It has occurred to me that perhaps you might be interested in a quick rundown of some of the items which have come before the Board for consideration during recent months.

In addition to handling the financial and administrative problems of the Association as well as the activities I have reported, consideration has been given to:

1. Paramedical groups—their educational programs and problems.
2. State and national laws on optometry.
3. All federal health legislation.
4. Physicians exchange programs with foreign countries.
5. A request from the Virgin Islands on the formation of a medical society as a component of the AMA.
6. Establishment of a foundation to provide research grants and fellowships.
7. American Medical Education Foundation.
8. A request from the Joint Blood Council for AMA's cooperation in a nationwide survey on blood banking facilities.
9. Joint Commission on Accreditation.
10. The narcotics question.
11. Joint Commission on Mental Health.
12. Corporate practice of medicine.
13. Union health and welfare programs.
14. Voluntary health insurance.
15. Appointment of Association representation on dozens of liaison committees.

Even this particular random listing will serve to give some idea of the load and responsibility which rests upon your Board of Trustees. Some of the decisions reached by the Board do not come easily. At times, debate waxes long. Mistakes are made; but they have been of the head rather than the heart.

CONCLUSION

Time has permitted me to touch only briefly on a few of the many positive programs of our Association. I hope this presentation will stimulate your interest so that you will consider it a personal obligation to increase your understanding of the vast and vigorous efforts of the AMA.

In human affairs, an important position is occupied by medicine; and it appears likely to become even more significant in the future.

As St. Paul wrote, "Finally, brethren, whatsoever things are true, whatsoever things are honest, whatsoever things are just, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report, if there be any virtue and if there be any praise, think on these things."

◗ Dr. Blasingame, 105 Hawes Street, Wharton.

Medical Aspects Of Aging and Long-Term Illness

H. B. MULHOLLAND, M. D.

Charlottesville, Virginia

TWO YEARS AGO, the American Medical Association decided that it was high time to take some cognizance of the problems concerned with our aging population and proceeded to set up a committee to which was attached the cognomen, "Geriatrics Committee." Soon, however, it was recognized that the term geriatrics carried with it a certain finality that one was on the downgrade, and indeed, perhaps with one foot at least poised over the grave, if not in it. As our committee concerned itself with the problem, it was evident the aging process began at conception, and furthermore, its progress may be extremely subtle for many years. After all, when one views cells under the microscope, they do not show much change with the lapse of time. Therefore, perhaps of great importance is research into the fundamental metabolism of the young and growing cell which is quite different from that of the older cell. Indeed, we do know definitely that cancer cells, for instance, have a different metabolic base than normal cells. Even though the various electrolytes and metabolic functions of the body seem to change so little during our life span, there may be other factors yet uncovered which may contribute important knowledge to what constitutes the aging process. From the known facts and many probably unknown, it is clear that we must think of this process in its broadest concept and direct our efforts and research into the problem with this in mind. For this and other reasons, we have now changed the committee's name to the Committee on Aging.

The committee's objectives have been defined as follows:

1. To explore problems concerned with the medical, biological, psychological, and social aspects of aging.

2. To collect data concerning energy maintenance, fatigue control, and the preservation of specific motivation.

3. To promote research in these areas.

4. To inform the medical profession of the availability of information regarding the aging processes.

5. To stimulate medical society interest in the problems of the aging.

6. To impress upon the practicing physician the important role he can play by assuming community leadership to enrich the lives of older citizens.

I shall try to elaborate briefly on these goals, realizing, however, that most of the facts I mention are well known. But perhaps repetition will serve to emphasize their importance.

RETIREMENT AT 65

Medical problems of the aging are closely related and associated with the retirement policy in the country at large. With what may have been thought to be good and sufficient reason, retirement age has been set around 65 years, for industry, labor, educational institutions, and others. Now that the average duration of life for men is at least 68 and women 70 plus years, it behooves us to reevaluate critically this policy. If one looks around, it is easy to see and cite examples of those persons more than 65 years of age who are quite capable mentally and physically of major contributions to whatever walk of life they might be in, and wherever they have been psychologically tested with their efficiency estimated, oftentimes surprising results have been uncovered. Persons in this age group have been found to compete very well with the younger age group. The country needs the collected wisdom and experience of many of these older people. To be sure, oldsters should be willing to allow the younger people under them to achieve the higher positions, but on the other hand, the capable individual should be kept on if even in a consultative basis. Otherwise, forced retirement results in lack of motivation, decline of interest, and dejection, and physical and mental deterioration may rapidly follow in its wake.

We must head up a program of education directed towards industry, labor, educational institutions, and the public in general to acquaint them with very obvious and important facts; namely, that this group which now numbers 14,500,000 is growing at twice the rate of the general population, and that it will not be long before we have at least 20,000,000 of these people in this country. No one can deny that such a group constitutes a segment which must be seriously reckoned with, economically, socially, and politically. It is estimated that there will be 75,000,000 people over 45 years in this country in 1975, which group, if it wishes to assert itself can become a powerful political pressure group. Economically, the

young men and young women of this country cannot afford to have these people dependent on them for their daily living. Experience has shown that it would take very little effort to make many of these persons self-supporting and self-sufficient, and many surveys made during recent years have shown that few of these oldsters want to retire. As a matter of fact, only 1 in 25 wishes to do nothing after the age of 65 years.

One of the phases of the problem that we as doctors might give some thought to is that of preparing

Dr. H. B. Mulholland, professor of internal medicine and assistant dean, University of Virginia Medical School, and chairman of the American Medical Association's Committee on Aging, presented this paper at a joint luncheon of the Texas Geriatrics Society and the Section on Public Health, April 30, 1957, at the Texas Medical Association annual session in Dallas.

Forced retirement at 65 often results in lack of motivation, decline of interest, and dejection, followed by physical and mental deterioration. Periodic health examinations and facilities for caring for the aged and for rehabilitation are important. Physicians should realize the magnitude of the problems of aging and take the lead in doing something about them.

men and women for this phase of their lives. Much can be accomplished through preretirement counseling, stimulating the development of hobbies and occupational therapy, and placing these people in the type of job best suited to their training and particular time of life. As a matter of fact, some industries cushion the effect of retirement by allowing an increasing period of vacation beginning at 60 years with one month and ending up at the age of 64 with a six months' vacation, so that at the time the persons actually retire, they have interested themselves in some other phase of life. Other medical aspects should include observations and attention to the effect of environment and stresses of life on what happens to people as they get older.

DISEASES OF AGING

One hears much about the effects of diet, particularly the fat content, and its influence on two of the most important factors involved in the aging process, namely, atherosclerosis and arteriosclerosis. Too much emphasis cannot be placed on the importance of finding out what makes arteries harder and why the process is accelerated in some and not in others; and why diabetics seem to have more of it more often than any other group of people of the same age. Many of the catastrophes that occur in this age group, such as coronary thrombosis, cerebral vascular accidents, peripheral vascular disorders, and other debilitating illness, might be prevented or at least postponed, if we could slow down the inception of this change in the blood vessels. Recent research has thrown some light upon the subject in that we know that certain nationalities who eat low fat diets seem to have less changes in their blood vessels, but at the same time one should not consider abruptly changing the life eating habits and cooking habits of the American public until more is found out about this concept. It is important to keep an open mind, but to get information from the good research that is done rather than from the daily press. It is obvious that obesity, which is certainly quite prominent and evident in the population of this country, may contribute materially to this process, and control of weight should certainly be fundamental.

Chronic illness is bound to be more prevalent as we grow older. The Commission on Chronic Illness has spent seven years in trying to evaluate and find some solutions to the many problems concerned with this in the older population and also in other age groups. Complications of arteriosclerosis, arthritis, and mental illness all constitute a major segment of the ills of our older population. First and foremost, we should encourage periodic health examinations done by all physicians with proper emphasis on screening procedures, picking out those procedures which might give some true insight into the early recognition of disease processes and which might point the way to eradication or slowing down of their progress. Good histories with attention to environmental factors and an accurate physical examination still remain important tools to work with. Selected laboratory tests might be useful. Once a disease state has set in, it is proper to plan to give the best care possible to these patients.

FACILITIES FOR CARE

Every general hospital should have in direct physical association a unit which is thoroughly equipped both in personnel and in physical facilities for evaluation, initiation of the necessary rehabilitation proceedings, and disposition of cases of chronic illness. This unit is much superior in many respects to the chronic disease hospital, which is of necessity an expensive type of operation, having to duplicate all of

the facilities found in a general hospital. Not only is it valuable to the hospital itself to have a chronic disease unit, but its personnel may be stimulated and indoctrinated into the multiple phases of the handling of chronic illness. Nearby each such institution, it would be wise to have a so-called convalescent home type of facility, where one could take care of those persons not requiring intensive hospital treatment. Such cases might include ununited hip fractures, hemiplegias, and the like. These no longer need expensive care but should have pleasant surroundings and not be in the midst of a lot of sick people; should have minor nursing care and medical supervision when necessary; and most important, should have rehabilitation, both mentally and physically, with the ultimate stimulus to look after themselves!

In New York, a recent survey conducted by a committee headed by Dr. Howard Rusk, revealed that 20 per cent of the people now in the general hospitals in that city could be cared for in this type of institution, and that these people would pay only $6 or $7 a day as compared with $22 a day in a general hospital, saving the city of New York thereby $6,000,000 per year.

Some thought should be given to the possibility of using some of the facilities now labeled for tuberculosis, because the morbidity of this disease is going down, the time these patients have to stay in the hospital is decreasing by leaps and bounds, and in some states fairly large institutions formerly housing tuberculosis patients are now used for chronic illness. Small hospitals constructed under the Hill-Burton act in relatively rural communities too play an important part in caring for the chronically ill. The staffs of these hospitals should be indoctrinated into what is best to do for these patients. Nursing homes are now caring for 400,000 aged and chronically ill; therefore, they constitute an important link, but there are many problems connected with these institutions. They must have proper licensing, good medical care with at least a minimum of rehabilitation, and more fundamental financial support of those who must be placed in these facilities.

Perhaps some states may follow the state of Washington, categorizing these homes into various types, namely, some for the aged, some for the senile, some for the chronically ill, and some especially for rehabilitation. Occasionally foster homes might be useful in a community where a person has no family or where the family cannot take care of him, thereby giving not only care of the patient but to those caring for them in a foster home some remuneration.

Many communities are now in the process of wondering what they should do about homes for the aged. If one wishes to go into the question, there are many models which might serve well for any community. The fundamental construction of such facilities is of importance. There must be a minimum of stairs to climb, surroundings should be bright, and these structures should be accessible to such things as a movie and a five and ten cent store. Simple things as nonskid floors are important, but above all, these persons should have privacy, and wherever possible, husbands and wives should live together. Recreational facilities with companionship do pay off. Two institutions have recently reported that with some attention to recreation and motivation the suicide rate has been cut from a considerable figure to practically zero. We can take a leaf out of the page of fraternal and religious organizations which in many areas run excellent nursing homes with features that might well be copied.

Most of us believe that the best place for the aged person and the chronically ill patient is in his own home, surrounded by his relatives and friends and his own cherished belongings. This may be difficult to achieve in our modern way of living, but it makes it none the less desirable. To accomplish this, it is often necessary to have assistance of the homemaker's service, first set up for children but now applicable to adults as well. These people may be of considerable assistance in the household, helping to cook and order groceries, making beds, wheeling the ill person around, and doing everyday household chores while the wage earner is away. Many patients may need the services of a visiting nurse, and indeed, such services may be rendered by married nurses who want to work a few hours a day, and in this way the minimal medical needs of these people may be taken care of. In every phase of the care of the aged and chronically ill, their own family physician must play an active part. He should always be aware and be in touch with the status of his patient, and it is his responsibility in the long run to make the proper disposition of his cases. This may take a lot of doing and require a top community organization fully aware of the needs and alert to the facilities available in the area. It is to such a group that a doctor should be able to go for guidance. Success cannot be achieved unless there is a free flow from one facility to another, and the patient should always be in that institution or facility which best fits the immediate needs of the particular phase of his illness.

REHABILITATION

No plan may be considered successful without major emphasis being placed on rehabilitation. The

literature is replete with examples which show how well rehabilitation may pay off financially. Indeed, individual cases made self-supporting and self-sustaining often save a community thousands of dollars. Vocational rehabilitation has paid off both to the individual and to the government in income returns from such persons who have received this attention. Each community may not be able to supply a rehabilitation center, but at least such centers can be set up on a regional basis, and if this is not feasible, mobile units are quite possible.

CONCLUSION

I am aware that personnel for all of this is in short supply, but financial support and an awareness of the satisfaction derived from doing something for these people should help to get more people interested in working with the aged. The field of genetics is just beginning to come into the purview of those interested in prevention of disease at all ages, and it may occupy an important position in the biological attack of the problem of aging.

We have not solved the problem of the relationship of such conditions as diabetes mellitus to vascular changes, nor can we neglect the factor of inheritance of a good vascular tree. There may be other factors which will be shown to play a role. Some of these, namely fatigue, diets, and stress, have been merely superficially attacked. Dr. Paul White believes that exercise may play a major role in the well being of older age groups, and I am sure that many examples can be cited to support his thesis that a little constant exercise is a good thing. Indeed, he is advocating that carefully selected graduated exercise may open up new collaterals in those who have had coronary thrombosis.

We must set our sights so that we can really try to solve some of these problems by realizing their magnitude and stimulating doctors and laymen to tackle the important social and economic aspects of aging. If we ignore them, their impact on the lives of succeeding generations will be unbelievably serious. For this reason, physicians should take the lead and assume the top role in seeing to it that the communities and the public are aware of the facts and of what we as physicians think should be done about the problem.

♦ Dr. Mulholland, Department of Internal Medicine, University of Virginia School of Medicine, Charlottesville.

Convalescent Homes

Their Place in the Medical Care of the Community

WILSON G. SMILLIE, M. D.

New York, New York

Dr. Wilson G. Smillie, Professor Emeritus of Preventive Medicine, Cornell University Medical College, presented this paper for the Conference of City and County Health Officers April 29, 1957, in Dallas.

Lack of adequate facilities for convalescent or chronically ill patients who do not require constant physician care presents a gap in the over-all medical care program in many communities. Some communities have provided convalescent homes or rehabilitation centers where patients can get needed care at less expense than would be possible in a hospital.

THE IMPORTANCE of convalescent homes is that they are related, in an important manner, to the medical care of chronic illness, with special reference to older age groups. Since I do not know the overall medical care situation in Texas, I can speak only in general terms from my own experience in rural and urban areas in other parts of the nation.

Certain aphorisms first may be presented:

1. We have not solved the problem of adequate care of persons who suffer with chronic illness.

2. Consideration must be given to this matter because of its ever increasing importance:

   a. The problem has become important because of the ever increasing number of persons in the older age groups.

   b. The decline of infectious diseases in the younger age groups has propelled our population into higher age brackets, thus increasing the relative number of individuals "at risk" to the inroads of the degenerative diseases.

In general, the older one becomes, the greater the certainty of the advent of chronic illness. It is true, of course, that chronic illness is not limited to persons over 65 years of age. In fact, there are greater numbers of people who suffer with chronic illness who are from 40 to 45 years of age than in any other five year life period. However, it is true that the person past 65 years of age requires more physician care than those in the younger age groups. District nurses tell us that well over 60 per cent of their services are devoted to the care of chronic illness in elderly people.

First let us establish certain definitions:

Medical care. This title is not limited to physician care, as it was in pioneer days, but includes all community facilities that are required for promotion of health and prevention of illness. It encompasses hospitals of all types, clinic services, physicians, dentists, nurses, ancillary medical services, public health and welfare departments, and voluntary health and welfare agencies.

There are four foundation stones in adequate medical care: (a) prevention; (b) diagnosis; (c) treatment; and (d) rehabilitation. Each of these components is implemented by individuals who have varied and special skills. The whole must be coordinated in order to be fully effective.

Chronic illness. The broad definition that we shall employ is any illness which causes, or potentially may cause, serious disability for a period of three months or more. Certain types of illness are chronic, but may not be seriously disabling. Examples are otosclerosis, hypertension, controlled diabetes, and certain forms of arthritis.

EXISTING FACILITIES

The general pattern of existing facilities for care of chronic illness is as follows:

1. Hospitals for care of the acutely ill. These facilities are widely used for care of the chronically ill. They should be so used for diagnosis, initial treatment, and care of subsequent acute relapse of chronic conditions, but otherwise they are not suitable for prolonged care. General hospital facilities are widely utilized, particularly in the smaller rural hospitals, chiefly because no other resources are available.

2. Nursing homes. For the most part these are proprietary institutions which are intended primarily for the care of elderly people who have a terminal prolonged illness.

3. Physician care in his office, or clinic care for the indigent. This is an excellent facility for care of the ambulatory patient who has chronic illness.

4. Home care. The physician care usually is supplemented by home nursing. The district nurse plays an important role in home care. In some industrial areas a system has developed by means of which the general hospital is extended into the home. The patient remains on the hospital register and is visited by the district nurse and the hospital staff physician when necessary. When a patient leaves the hospital he is discharged to "hospital-home care," returning as often as necessary for special therapeutic procedures without readmission. This plan is suitable for densely populated areas, but has not been developed in rural communities.

5. State institutions—particularly state hospitals for care of mental illness. These institutions are used extensively for the care of senile dementia patients and those with cerebral arteriosclerosis. In some states more than 50 per cent of admissions are of persons over 65 years of age. In certain areas the state mental disease hospital has become in reality an institution for the custodial care of elderly patients. The state hospitals are highly unsuited for the care of these patients. A plan should be developed in which the hospitals for mental illness are reserved for diagnosis and treatment of the mentally ill patient who has hope for rehabilitation.

Traditionally the county farm has been an institution for the custodial care of elderly indigent people with chronic illness and disability. For the most part such institutions have been abandoned as unsuitable, but if they are properly constructed and well administered they may fill an important role in over-all medical care.

CATEGORIES OF CHRONIC ILLNESS

Ambulatory Patients.—The great proportion of persons with chronic illness are at least semiambulatory. They can be cared for adequately if they live at home by means of physician supervision, clinic service which has rehabilitation facilities, and district nurses.

To this may be added special rehabilitation units such as "sheltered workshops," and "work classification service." For those who have no home, a system of "foster homes," comparable to foster home care of children, is better than institutionalization. The foster home system may be employed for care of ambulatory patients who have slowly progressive senile dementia, cerebral arteriosclerosis, or in selected instances, those with the higher grades of mental retardation.

Bedridden Patients Who Are Relatively Nonrehabilitable.—Examples of nonrehabilitable bed patients are elderly persons with cardiac decompensation, terminal cancer, advanced arthritis, extensive cerebral hemorrhage, and a host of similar conditions. These patients require medical supervision but not constant physician care. Here nursing service is the most important element. "Practical" nurses can be

utilized with advantage. Important factors are homelike surroundings, comfort, and ready access of friends and family. The solution is the small nursing home, from 12 to 25 beds. These nursing homes are now widely available. The usual pattern is the conversion of a mansion of vintage, just off the main street, into a proprietary nursing home, which is usually operated by a practical nurse, with untrained assistance. It has a homelike atmosphere, but seldom is it adapted to the needs of bedridden patients. Often it is a firetrap. Exploitation of patients is a potential danger, but it is seldom encountered. As a rule the patients get excellent care at a relatively low cost.

It is now generally believed that the nursing home should be a local community enterprise, administered preferably by a voluntary agency. It should be constructed for the purpose intended, should be one story, and be fire resistant with ready exits. A registered nurse should act as supervisor, with physicians on call. It does not require elaborate diagnostic or therapeutic equipment. In brief, the nursing home has its limitations, but serves a special and useful purpose.

REHABILITATION CENTERS

The great unmet need in our medical care administration is a facility to care for the person with chronic illness or disability who is rehabilitable. This patient should not remain in a hospital for acute illness for a longer period than is required for diagnosis and initial therapy. He cannot be cared for adequately in a nursing home; nor in his own home. Although the need for this type of service is urgent, and is increasing, we have only begun to make plans to meet this need. As yet we hardly fully understand its function and its relation to other medical care facilities.

This new facility, for which we do not even have a suitable title (rehabilitation center, restoration center, convalescent center), must be much less elaborate and less expensive to construct, equip, and operate than the general hospital. It must be soundly constructed and well planned, and above all, must have facilities for rehabilitation. It does not require its own pathological laboratory or operation room, diagnostic laboratory, or other expensive diagnostic and therapeutic facilities. It does not require constant physician attendance, but does need expert nursing supervision. It requires the facilities of physical therapy, occupational therapy, and social service. It must have a direct line of administrative relationship with the community hospital for acute illness. Preferably, the administration and sponsorship of both institutions should be identical, or at least closely related. This provides for ready transfer of the patient to and from one institution to the other.

At present, some chronically ill patients are retained in the general hospital for long periods, but the tendency is to reserve the beds of acute illness hospitals for patients who will occupy them for no longer than five to eight days. Furthermore the general hospital should not require equipment for physical and occupational therapy. This type of therapy belongs to the rehabilitation center.

I shall give some illustrations of various experiments in the development of facilities to meet this vacuum in our medical care, and attempt to point out the advantages and disadvantages that have unfolded in each instance.

BURKE CONVALESCENT HOME

The beautiful Burke Convalescent Home, White Plains, N. Y., was endowed as a nursing home in memory of a widow who, in later years, suffered a prolonged illness with no available recourse. Her son became wealthy and left his fortune to found the home. In due time the services of the home were reevaluated, and it was decided to convert it into a rehabilitation center. The bed capacity was reduced from 274 to 170 beds. Physiotherapy, occupational therapy, and social service were installed. Direct affiliation was secured with a university hospital through suitable staff and board member appointments, and a referral system was inaugurated with other community hospitals. Ready transfer of patients from the hospitals for acute illness to the convalescent home was established. The home is used for cases such as a patient who had had a coronary attack and who was ready for discharge from the university hospital, but not ready to return home, and a young man who had an amputated leg but had no prosthesis and needed time for adjustment to his new life. Surgical patients of great variety can leave the acute illness hospital in a few days, if there is an adjacent suitable, relatively inexpensive facility for their convalescence and rehabilitation.

One great disadvantage of the Burke Home is that it is too far from the parent institution, some 12 miles, and, furthermore, it is not an integral part of an over-all medical care plan. The difficulty is solved in part by suitable dual staff appointments. The physician in the general hospital, in referring a patient to the Burke Home, is in reality referring the patient to himself.

GAYLORD FARM

Gaylord Farm at Wallingford, Conn., is one of the earliest voluntary tuberculosis sanatoriums in Amer-

ica. It has a substantial endowment. As tuberculosis decreased, the hospital population declined to the point of less than one-half the capacity. Three possibilities were considered: (a) close the sanatorium and sell the institution (this was done at Trudeau Sanatorium, largely because of its isolation); (b) develop a nursing home; (c) develop a rehabilitation center. The third choice was selected by the board of managers. An affiliation was established with Yale University Medical School, 17 miles away. Joint staff appointments were arranged, with benefit to both institutions, but the real disadvantage is distance from the general hospital to the convalescent home. It is possible, however, for interns and medical students to take part of their training at the rehabilitation center, and convalescent patients can be transferred satisfactorily.

THAYER MEMORIAL HOSPITAL

Perhaps the best example of forethought and careful planning that I can present is the Thayer Memorial Hospital in Waterville, Maine. This is an acute illness hospital of some 63 beds. Waterville draws patients from a wide rural area. These people come from farms and small towns where the average per capita income is relatively low. The hospital initiated its service in 1931 in a converted residence. It established its new and modern building in 1952. In 1955 the average daily occupancy was 86.5 per cent, with an average length of stay of 5.7 days. The average expense per patient was $22.66 daily. It is a well appointed accredited hospital (fig. 1).

The second step in medical care planning was the establishment of the Mansfield Clinic. This general clinic, in 1955, had a total of 451 new patients, and 1,516 visits. In addition to the general clinic services for ambulatory patients, there are special services for crippled children, mental health, amputees, speech and reading clinics, and well baby services. In all there were 2,674 clinic visits during the year.

The third step has been the establishment of convalescent care service which is now in progress. It is essentially a facility for care of chronic illness in rehabilitable patients. It will have 34 beds and will be equipped to provide for all necessary rehabilitation needs, including social service. It is an integral part of the general hospital and of the clinic as well. It is under the same administration and medical supervision as the general hospital although in all probability it will have its own endowment. Duplication of many items of equipment are avoided through utilization of those of the general hospital; for example, nutrition service, nursing supervision, and general administration. The per capita per day costs should be materially lower than those of the hospital for acute illness, and the duration of stay of each patient will be much longer. Transfer of patients from (a) the general hospital to (b) the convalescent home to (c) the clinic can be handled with expedition.

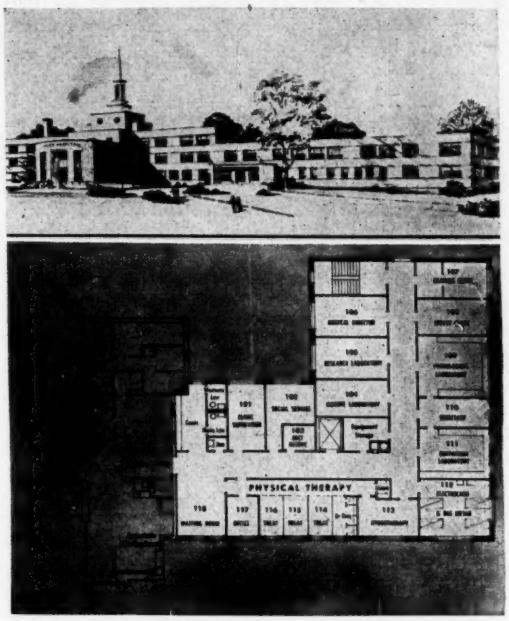


Fig. 1. An acute illness hospital, clinic, and home care service are combined with a unit for convalescent care and rehabilitation at Thayer Memorial Hospital, Waterville, Maine. The architect's drawing (above) and floor plans (below) are shown.

The value of a community service of this type, which is organized and administered in this manner, is an excellent illustration of the thoughtful planning that is under way for the solution of one of our outstanding unmet needs in medical care in America.

CONCLUSION

I have presented a small segment of medical care administration that has not been carried out effectively in this country, and have indicated what the problem is and how it is being solved in some communities. As time goes by, more physicians—especially health officers—will take an active and increasingly effective part in the initiation and the development of communitywide plans for adequate health services.

Dr. Smillie, 105 East 22nd, New York 10.

Survey Of Facilities And Services Available to Elderly People In Texas

MEDICAL SERVICES COMMITTEE, TEXAS GERIATRICS SOCIETY

THE Texas Geriatrics Society thought a survey of the resources available to elderly patients in Texas would be helpful to its members and others; therefore, a Medical Services Committee was appointed in April, 1956, and asked to conduct a questionnaire survey.

Questions were designed to find out what facilities and services are available in Texas that offer elderly people opportunities for information, recreation, informal and formal education, work, vocational counseling, specially designed housing, services in their homes, and financial aid, as well as organized health and medical care.

The committee mailed 638 questionnaires to representatives of the following: county medical societies; community councils or United Funds; Texas State Department of Public Welfare, field offices and the state office; local and state health departments; known organizations concerned with aging such as committees and volunteer councils; Texas State Hospitals and Special Schools; Social Security Administration; Department of Health, Education, and Welfare; the three Texas medical schools and the two dental schools; the Texas Geriatrics Society (all members) and the American Geriatrics Society; local mental health societies and the Texas Society for Mental Health; and local offices of the Texas Employment Commission.

In the main, the 238 replies indicated that this type of resource is not dissimilar for the older age group. It is apparent that the large cities have been necessarily more concerned with organizations. Much of the data from smaller communities could be used only for statistics and are not helpful for our purposes. This material does signify that many private practitioners and private clinics and hospitals frequently contribute their services to persons in this age group. This is also true of local governments, religious organizations, and civic bodies. Frequently these act independently or together and often are informally organized to help the elderly. The most frequently mentioned was local groups organized to visit their own sick aged.

Members of the Medical Services Committee of the Texas Geriatrics Society are Dr. Frederick G. Dorsey, Houston, chairman; Dr. Elizabeth Gentry, Austin; Dr. Henry A. Cromwell, Houston; Dr. Normabelle Conroy, San Antonio; and Dr. Wendell D. Gingrich, Galveston.

STATEWIDE FINDINGS

In general, in communities having committees, special councils, or councils of social agencies or United Funds, these organizations serve as information centers to give data about facilities and services for the older persons as well as other age groups. A few of the larger cities have special committees or councils for continuing study of the problems of the aging population. In the smaller towns the Texas Employment Commission or the Vocational Rehabilitation Division of the Texas Education Agency and/or the Department of Public Welfare were usually named in this survey as fulfilling this community function.

Golden Age Clubs or similar clubs are reported in many communities; namely, Abilene, Austin, Baytown, Beaumont, Brownsville, Corpus Christi, Dallas, Denton, El Paso, Floydada, Fort Worth, Galveston, Houston, Lamesa, Lubbock, Midland, Monahans, Nacogdoches, Orange, San Antonio, Texarkana, Victoria, Wichita Falls. Day centers are reported in Austin, El Paso, Pampa, Stephenville, Temple, and Waco. Numerous organized programs are sponsored at frequent intervals for older citizens by churches, welfare agencies, and the like. Those given by name were Rosemary Annual Party at Spur and Glamorous Sixties Adventure Club at Denton.

The questionnaire's request for information regarding organized home care programs and outpatient medical services for no-pay or part-pay persons of this age group was usually answered in the smaller communities as being available from volunteer private physicians or local public health departments. In the larger cities, the city-county or city-county hospitals and outpatient departments were named. It was not ascertained as to how many persons were provided these services.

The Texas State Department of Health furnishes upon request a directory of nursing homes, including those providing custodial or attendant care, licensed by the department. These homes are listed by county. The name of the home and the address is given as well as the owner or manager and the capacity in number of beds. This directory is published periodically. Homes for the aged are not necessarily

included in the listing but appear to be well known locally.

The Board for Texas State Hospitals and Special Schools has no facilities available for the treatment of older persons other than those who have been committed to one of our mental institutions by legal court procedures. Facilities do not exist under the jurisdiction of the board for the medical, surgical, and nursing treatment of the aged nonpsychotic person.

The State Commission for the Blind offers a home teacher service to blind adults. The purpose of this service is to assist blind persons in their social and personal adjustments through the use of counseling and occupational therapy and through the provision of instruction in the use of tools and the development of skills which will enable the blind to meet more fully the needs of day to day living. Home teachers are found in Amarillo, Dallas, Fort Worth, Houston, Lubbock, San Antonio, and Waco. Another

Dr. Frederick G. Dorsey of Houston, chairman of the Texas Geriatric Society's Medical Services Committee, and other members of the committee presented this report for the Texas Geriatrics Society April 30, 1957, in Dallas.

Of 638 questionnaires sent to various persons throughout the state, 238 replies indicated that resources for elderly people in Texas are not dissimilar from the facilities and services for other age groups. Statewide findings from the survey are discussed, and opportunities for the aged in a dozen of Texas' largest cities are considered in more detail.

service which is offered by this agency to blind adults of all ages is the distribution of talking book machines. It also administers the state-federal supported vocational rehabilitation programs for the blind in Texas. A person to be eligible for vocational rehabilitation services must have the mental and physical capacity which with the aid of these services will enable him to hold full time employment.

The Texas Education Agency, Vocational Rehabilitation Division, is a state agency which helps people who have a physical or mental impairment which has affected their abilities to earn a living. This service is intended to restore a person to gainful employment by means of such services as (1) medical care, (2) vocational training, and (3) counseling and guidance. There is no age limit.

The Texas Employment Commission has a statewide service administered through local offices. The placement of older workers is an integrated part of the total placement program. The older worker receives the same opportunities for referral to job openings as any other worker based on his existing skills, knowledges, abilities and potentialities. Older workers who have a distinct employment problem because of physical disabilities or physical handicaps, or because their formal skills are now obsolete in the present market, or because they are now reentering the labor market after a period of inactivity are referred to trained employment counselors. These counselors then concern themselves with exploring employment potentialities of the worker and attempting to guide him into areas of best possible job opportunities in relation to all of his assets. If the person is in need of additional training, specialized medical services, welfare, or other social services, he is referred by the counselor to the appropriate organization or agency in the community.

The University of Texas Medical Branch Diagnostic Clinic and the John Sealy Hospital in Galveston function as a general hospital system for part-pay patients referred by Texas physicians. The M. D. Anderson Hospital and Tumor Institute in Houston serves in a somewhat similar way for those having suspected or established malignant disease. Older persons having tuberculosis may receive hospitalization through the state tuberculosis hospital system.

Financial assistance to those unable to work full time because of age is available through the public welfare program of the state of Texas.

For various reasons certain opportunities have been dealt with on a statewide basis, as has been discussed, but it is apparent that only densely populated areas have found it necessary to provide many of these opportunities. In West Texas there has been a regional effort known under the original name of West Texas Regional Committee on Older Adults. Several regional and local round-table discussions of the problems of older citizens have been held. The Texas Technological College in Lubbock, with the West Texas Council on Adult Education, has been active in this field and has published reports of these conferences and brochures of its programs.

LOCAL FACILITIES

The largest cities will be considered in more detail.

Amarillo.—Amarillo has a Senior Citizens Organization under the adult education program. The senior citizens have a volunteer council utilizing older citizens.

Austin.—The Adult Services Council in Austin is the community organization which acts as an information source as well as a working body. It has conducted a detailed survey of the nursing home problems in Austin and has worked closely with the

city health department in improving the nursing homes of the county. The council plans to publish a directory of the facilities and services for old people available in Austin.

Beaumont.—Information about facilities and service for old people in Beaumont is obtained through the central index sponsored by the Community Council. The Community Council published an over-all community resources directory in 1956.

Corpus Christi.—The Nueces County Medical Society's Advisory Committee on Chronic Care serves as a community organization for the aged in Corpus Christi. Information about facilities and services for older persons is obtainable through the Memorial Hospital Social Service, City-County Welfare Department, the Family Service Bureau, and the State Department of Public Welfare. It is reported that an air conditioned 62 bed nursing home with 45 additional custodial beds was being constructed adjacent to the city-county hospital at the time of the reply to the survey. Delmar University includes older citizens in its educational program.

Dallas.—The Division on Aging, Council of Social Agencies of Dallas, acts as the community committee specially interested in the aged. Information about facilities and services for older people is obtainable through the E. D. Farmer Foundation for the Aged. A section in the Council for Social Agencies' health and welfare directory lists services for aged people. Educational programs for older citizens are available from several sources. The home for Jewish aged has a program specifically for older people. There are college courses at the Dallas Public Evening School, the YMCA, and the YWCA, which include some persons over 65 years. Dallas College has 20 special scholarships for persons over 65 years of age. The E. D. Farmer Foundation, Family Service Association, the Jewish Family Service, and the State Department of Public Welfare all offer family counseling for older citizens and their families. Retirement or preretirement counseling is reported in some few large firms (Chance Vought Aircraft, American Airlines, Swift and Company). A limited number of old people are offered opportunities of sheltered work in the Goodwill Industries. There is a Visiting Nurse Association which provides bedside nursing care at home, and older persons are included in their clientele. The Visiting Nurse Association has three homemakers to serve persons of all ages in the entire city.

El Paso.—El Paso has a Community Services Council which has an information service and a directory. Goodwill Industries has an outlet shop for sale of articles made at home or in the sheltered workshop, and has part time placements for older citizens.

Fort Worth.—In Fort Worth the Volunteer Center of the Community Council utilizes older citizens as volunteers. Information is obtained from the Community Council. This area has an organized home care program with a part time physician and full time nursing from the City Nursing Division and the County Nursing Division of Tarrant County. Goodwill Industries is represented in Fort Worth. Family counseling is available from the E. D. Farmer Foundation as well as the Family Service Association. At the time of the survey the Community Council was organizing a Committee on Aging.

Galveston.—In Galveston information is obtainable through the referral service of the Family Welfare Agency. A community resources directory has been published.

Houston.—Houston has a community committee on aging known as the Community Council Committee on Aging. Volunteer Community Service is an organization utilizing older citizens and giving service to them. The Health and Welfare Information Service of the Community Council and the Welfare Department of the Council of Churches have information centers for facts about facilities and services for older people. Recently a directory called "Over 60?" was published giving specialized services and facilities for older persons in Harris County. Sheltering Arms offers friendly visiting to older people in their homes and also has a foster home care program for older people. Jewish Family Service and Sheltering Arms offer family counseling for older citizens or their families. The Harris County Medical Society has a Geriatric Committee. The Houston Chamber of Commerce has a Committee on the Problems of Aging, and the Jewish Community Council of Houston has an active group interested in older persons and sponsors an annual conference on aging. There are outlet shops for sale of articles made at home at the Ripley House and Mary Dell Flagg Opportunity Club. Vocational counseling and rehabilitation for older citizens is available through vocational service. There are a number of preretirement and retirement programs in industry in this area, and one large company has a full time psychologist in charge of its program.

San Antonio.—The San Antonio Recreational Council utilizes older citizens as volunteers. This council acts as an information center and has published a directory. The Neighborhood Settlements includes an educational program for older citizens. San Antonio has planned a large low cost housing project for elderly people. Marie C. McGuire is executive director of the Housing Authority of the city of San Antonio.

Texarkana.—The Community Chest sponsors a visiting nurse who is available to older citizens and others in Texarkana. The Community Services Council includes opportunities for older citizens and has

information available for them. This community has a Visiting Nurse Association. The Bowie County Medical Society Tumor Clinic has some patients in this age group.

Waco.—In Waco the community committee is known as the Division of Services to the Aging of the Council for Social Welfare. There is a day center in Waco known as the Louis Migel Center. There is an outlet shop at the YMCA for sale of articles made at home.

Dr. Dorsey, 1200 M. D. Anderson Boulevard, Houston.

Differential Diagnosis Between Cardiac and Pulmonary Dyspnea

LAURENCE B. ELLIS, M.D.
Boston, Massachusetts

DYSPNEA may be defined as consciousness of breathing that is difficult or distressful. It is, of course, a phenomenon that occurs on severe exercise in normal people; our concern with it, however, is its occurrence at a level of activity at which normal persons are not short of breath. Many mechanisms may be involved—apprehension, pain, mechanical hindrance to respiratory movements, intrinsic disturbances of the pulmonary apparatus or the circulation, and disturbances of the biochemical and reflex factors controlling respiration.

It should be remembered that dyspnea is a subjective symptom, and therefore it will vary from person to person depending on his awareness of the sensation. This awareness will be affected by the extent to which the patient may be accustomed to the symptom. Thus the patient with chronic emphysema may not notice difficulty in breathing which would be very distressing to those subject to episodic attacks of pulmonary edema or bronchial asthma. It also will be affected by the degree of anxiety that it creates. For example a paitent with heart disease who has been queried many times by his doctor as to whether or not he suffers from shortness of breath and who has a natural anxiety about his cardiac status will be much more aware of any breathing difficulty than will a person who is unconcerned about his health.

From the Thorndike Memorial Laboratory, and the Second and Fourth (Harvard) Medical Services, Boston City Hospital, and the Department of Medicine, Harvard Medical School.

TESTS OF PULMONARY AND CARDIAC FUNCTION

Many tests that are useful in evaluating pulmonary function and in helping to assess the cause of dyspnea are readily available to doctors in office practice and do not require elaborate apparatus or complicated techniques. Such tests for the most part measure ventilatory capacity, that is, the volume and rate of movement of air into and out of the chest at rest or during effort. Others measure intrapulmonary distribution of the inspired gases, or the diffusing capacity of the pulmonary membrane between the alveoli and the pulmunary capillaries.

Among the ventilatory tests the determination of the vital capacity is known to all physicians. This, of course, represents the maximum volume that a person can exhale after maximal inspiration. What is not fully appreciated is that much more useful information can be obtained by a timed vital capacity, that is, the percentage of the total vital capacity that can be delivered within a period of one, two, or three seconds. The normal person will exhale at least 75 per cent of his vital capacity the first second, 85 per cent by the end of the second second, and 95 per cent within three seconds. The vital capacity can be subdivided into the inspiratory capacity, the tidal volume, and the expiratory reserve volume. The remainder of the total lung capacity, the residual volume, is that which remains in the lungs after the patient has forcibly exhaled. To determine this volume more complicated tests are required which are not available to most physicians.

Further information can be obtained by an inspection of the spirographic breathing pattern which can be recorded on an ordinary basal metabolism machine. Hyperventilation and irregular breathing can be observed easily, and of particular interest is a progressive elevation of the pulmonary midposition—the volume of air in the lungs at the end of a normal expiration—during rapid breathing. In clinical states that cause such "air trapping" as asthma or emphysema, there is a progressive increase in this midposition on effort.

Fluoroscopic observation of the patient during quiet and forced breathing often provides much helpful information. Fixation of the thoracic cage and limitation of diaphragmatic motion can be assessed and "air trapping" on forced expiration may be observed, all signifying impairment of ventilation.

The maximum breathing capacity can be relatively easily measured by one of several techniques. This is the maximum amount of gas which a person can hyperventilate voluntarily in liters per minute.

Intrapulmonary gas distribution can be measured by methods which determine the rate of mixing of a gas such as helium with the lung gas or by the determination of the thoroughness of rinsing of pulmonary nitrogen from the alveoli during a specified interval of oxygen breathing. Normally the inspired air must reach all the alveoli at the same time and in the same concentration. In many pulmonary diseases which show obstructive ventilatory insufficiency, inspired gases are unevenly distributed to various parts of the lungs.

The diffusion of gas across the alveoli capillary membrane also can be measured. This depends on the pressure differences of the gas on the two sides of the membrane, on the density of the gas, and on the solubility in that membrane. If there is some impediment to the passage of gas across the alveolar membrane, then the pressure of oxygen in the alveoli will be considerably higher than that which reaches the pulmonary capillaries. Since carbon dioxide is 21 times more soluble in the pulmonary membrane than oxygen, a significant blood diffusion barrier to carbon dioxide cannot exist without a fatal block to oxygen transfer. Carbon dioxide retention and respiratory acidosis never result from diffusion difficulties but always from abnormalities in ventilation or distribution.

Dr. Laurence B. Ellis, associate clinical professor of medicine, Harvard Medical School, presented this paper for the Section on Internal Medicine at the annual session of the Texas Medical Association in Dallas, April 29, 1957.

The mechanisms by which dyspnea is produced in both pulmonary disease and cardiac disease are covered in respect to various pulmonary function measurements, including abnormalities in ventilation, impairment of diffusion, pulmonary hypertension, increased work of breathing, and the specific effect of changes in blood flow.

The oxygen tension in the arterial blood also can be measured, although more commonly the less exact measurement of arterial oxygen saturation is carried out. This may be reduced for a number of reasons, either because of insufficient gas pressure in the inspired air, or because of underventilation, or mechanical obstruction to air flow, or to improper distribution when certain alveoli are perfused with blood but are not being properly ventilated, resulting in what is equivalent to a right to left shunt of venous blood, or to anatomic vascular shunts permitting venous blood to by-pass the lungs, as in congenital heart disease, or finally to the alveolar-capillary block syndrome in which there is impairment of diffusion across the alveolar membrane. If the measurements of arterial oxygen tension are carried out at exercise and also after breathing 100 per cent oxygen, significant added information can be gained. Exercise tends to accentuate the reduction of arterial oxygen tension due to underventilation from whatever cause, and breathing 100 per cent oxygen tends to remedy it at least to some extent. If the anoxemia is due to right to left shunts by-passing the lungs, then the breathing of oxygen is less likely to show any significant change in the arterial saturation of oxygen.

In addition to the various tests of pulmonary function that have been mentioned, there are certain specific tests dealing with the hemodynamics of the circulation that on occasion are very helpful. Chief among these are catheterization of the heart, either of the right or the left side. From such catheterization procedures the blood flow or cardiac output can be determined as well as pressure changes within the heart itself and in the pulmonary circulation. Catheterization studies are also useful in making a diagnosis of various types of congenital heart disease, particularly those with left to right shunts.

DYSPNEA OF PULMONARY DISEASE

Shortness of breath resulting from primary disease of the lung will be discussed first, because in these disorders there is a much better correlation between dyspnea and abnormalities of various pulmonary function tests than in patients with cardiac dyspnea. In the first place it can be said, as a more or less general rule, that dyspnea of pulmonary origin will occur when the breathing requirement at a given level of activity approaches about one-half of the maximum capacity to breathe, in other words when the breathing reserve is less than 50 per cent. Hence, the symptom will develop whenever there is a marked diminution in breathing capacity, a marked increase in breathing requirement, or a combinaton of both.

DECREASE IN BREATHING CAPACITY

Restrictive Ventilatory Insufficiency.—Restrictive disease of the lung results from loss of functioning pulmonary tissue, as in extensive fibrosis, after pulmonary resection, by the encroachment by a pleural effusion or marked cardiac enlargement, by severe chest deformity, and in respiratory neuromuscular disease such as poliomyelitis or myasthenia gravis. In this type of insufficiency the capacity to breathe de-

creases in proportion to the amount of lung tissue lost or to the amount of damage to the involved muscles. A reduction is seen in all compartments of the lung volume; that is, both the vital capacity and the residual volume are reduced. The reduction in vital capacity is usually well correlated with the degree of dyspnea.

Obstructive Ventilatory Insufficiency.—In contrast to the static disturbance of ventilatory function seen in restrictive disease, the important element in obstructive disease is difficulty or delay in moving air in and out of the lung, particularly during effort. The site of the obstruction may be in the major airways, as with major bronchial obstruction due to a tumor, or it may be of the bronchiolar type as in bronchial asthma or emphysema. Since the important element in the disturbed pulmonary function is an increased airway resistance, causing a delay or difficulty in moving air out of the lungs, there is poor correlation with volumetric tests just mentioned and the disturbance is best detected by dynamic tests. For example, there may be relatively small reduction in the total vital capacity, but the timed vital capacities—the proportion of the total vital capacity registered in one, two, or three seconds—and the maximal breathing capacity become progressively reduced. The physical effort of accomplishing expiration is increased, and this can be measured by special tests. There is also an increase in the functional residual capacity, and this results in defective distribution of gas within the lungs. In conditions of this type underventilation of the alveoli may produce respiratory acidosis with hypercapnia and elevated carbon dioxide tension in the blood. Such patients also may have a decreased arterial oxygen saturation, and this may be accentuated during exercise in contrast to the reaction of normal persons in whom exercise results in an increase in the arterial saturation. However, if such patients breathe 100 per cent oxygen, the oxygen pressure in the alveoli usually increases significantly. In contrast is the arterial anoxemia which exists when some of the blood by-passes the lungs entirely in going from the right to the left side of the heart or perfuses unaerated lung tissue, which is not affected significantly by the breathing of pure oxygen.

INCREASED BREATHING REQUIREMENT—HYPERVENTILATION

Certain types of hyperventilation are metabolically justified. For example, in hyperthyroidism the demand for oxygen rises with the increased metabolic activity and hence the need to ventilate is increased in proportion. We are concerned here, however, with metabolically unjustified hyperventilation. This is almost always due to one of two causes.

First is excessive stretch reflex stimulation from the lungs typically seen in pulmonary fibrosis. It has long been known that a complex pattern of respiratory reflexes controls the inspiratory and expiratory breathing mechanisms which are usually adjusted so that the rate and depth of breathing is adapted to that rhythm which is most economical in terms of the actual work of respiration. Stiffening of the lung tissue results in more work of breathing and hence tends to initiate the expiratory phase of respiration earlier with resulting shallow breathing which must be rapid if there is an increase in ventilatory demand. Rapid shallow breathing is distressing, and in addition it is inefficient because of the waste effort involved in the frequent washing out of the respiratory dead space.

The second type of hyperventilation is seen if the pulmonary capillary oxygen tension is low. This occurs normally at high altitudes and abnormally when there is alveolar-capillary block or impairment of diffusion of oxygen from the alveoli into the lung capillaries. Such a disturbance in diffusion may possibly be a factor in the dyspnea of many patients with severe mitral stenosis and is also seen in various types of primary pulmonary disease, particularly the granulomatous diseases. In such conditions the patient hyperventilates in an effort to make his alveolar oxygen pressure more nearly the same as the room air oxygen pressure and thus to provide a bigger oxygen gradient or push for the oxygen to penetrate the membrane. Such patients characteristically hyperventilate and have a large alveolar-arterial oxygen pressure difference. The greatest degrees of hyperventilation are seen in patients of this type. Moreover, since they hyperventilate so greatly and since carbon dioxide diffuses 21 times more easily than oxygen, they characteristically have a respiratory alkalosis because too much carbon dioxide is blown off. They do not develop carbon dioxide retention and respiratory acidosis.

Many patients with pulmonary disease show in varying degrees combinations of the types of ventilatory insufficiency discussed, but a careful clinical evaluation plus selected pulmonary function tests usually suffices to give an accurate answer as to the cause of their dyspnea. As will be shown, patients with cardiac disease also exhibit the various types of ventilatory insufficiency previously discussed, but in addition they have other specific circulatory factors contributing to their shortness of breath.

DYSPNEA DUE TO HEART DISEASE

In contrast to pulmonary disease the dyspnea of heart disease is more difficult to correlate with tests of pulmonary function. Indeed on careful analysis it often appears that the "dyspnea" of cardiac patients,

especially of those with mitral stenosis, is not so much shortness of breath as breathing fatigue. Nevertheless, in heart disease even more than in lung disease, the complaint of dyspnea is the paramount symptom of a failing compensation.

IMPAIRED BLOOD FLOW

As cardiac reserve lessens the maximum cardiac output frequently diminishes until a point is reached when the maximum blood flow is being developed at rest. On effort with its increased oxygen demand no increase is possible. This progressive limitation of the ability to increase blood flow as oxygen consumption rises produces anoxia in the exercising muscles, including the muscles of respiration. There is an accumulation of metabolites in these muscles, fatigue results, and all work, including breathing, becomes increasingly an effort.

DISTURBANCE IN PULMONARY CIRCULATION

Physiologic studies, however, have clearly indicated that the impairment of blood flow is an inadequate explanation of the degree of dyspnea that occurs in the decompensated cardiac patient. Other factors are involved. With left-sided heart failure there is an elevated blood pressure throughout the pulmonary circulation, together with distended pulmonary vessels. Such hypertension and congestion markedly alter the distensibility of the lung and increase the work of breathing. The pulmonary air spaces are encroached upon, resulting in an interference in ventilatory function of the restrictive type. However, such interference with ventilatory function in severely crippled cardiac patients is usually less than in comparably handicapped patients with lung disease, and these disturbances of function are not alone adequate to explain the difficulty in breathing.

Patients with the most severe grade of heart disease, patients who have marked hydrothorax or whose diaphragms are markedly elevated by ascites and who have very large hearts, all have an increasing degree of a restrictive ventilatory defect.

The sequence of events leading to dyspnea in patients with heart disease as they become progressively disabled therefore may be described in the following terms. Patients only slightly disabled by dyspnea would be classed as class 2 of the American Heart Association classification. They have slight impairment of both total and timed vital capacities, and their maximum breathing capacities still may be within the normal range. The expiratory reserve volume may be slightly increased because of a slight degree of functional emphysema resulting from some stiffening of the lungs. The work of breathing probably has begun to increase a little. They have no difficulty in intrapulmonary gas distribution and no impairment of diffusion of gas across the alveolar membrane. The dyspnea in these people is chiefly the result of an inability to accomplish a maximum increase in cardiac output on exertion resulting in earlier fatigue of the respiratory muscles coupled with the fact that they are beginning to have to do more work to accomplish a given respiratory effort.

As dyspnea increases, in class 3 patients, all of the previously described tests show a greater degree of abnormality but still much less than in comparable patients with primary pulmonary disease. In these class 3 patients the inadequate blood flow is more manifest and at the same time the lungs are getting more and more congested and ventilatory insufficiency is beginning to develop. When class 4 patients, mostly patients in overt congestive failure, are studied, we have an exaggeration of all of these findings, but since these patients as a group tend to have larger hearts and frequently have hydrothoraces, they may show some decrease in the total lung capacity. For the most part, however, patients even in this group show no difficulty in intrapulmonary gas distribution. Patients who are severely disabled by dyspnea may show at times a great deal of difficulty in the diffusion of gases across the alveolar membrane. As stated this tends to lead to hyperventilation as a mechanism of raising the oxygen tension in the alveoli. This, of course, further contributes to the amount of dyspnea that is present. Most patients with dyspnea from cardiac failure do not hyperventilate on exercise. If they do hyperventilate, it may well be an indication of the presence of alveolar-capillary block.

Many patients, of course, have combinations of cardiac and pulmonary disease. These may be etiologically related as in cor pulmonale, where heart failure may supervene in patients who have sustained pulmonary hypertension on the basis of pulmonary fibrosis or emphysema. Or, there may be unrelated heart and lung disease, particularly in older people in whom obstructive emphysema or asthma often coexist with arteriosclerotic heart disease. The various ventilatory tests described are particularly useful in differentiating the cause of the shortness of breath in patients of this type.

Specific tests of cardiac function may be helpful also in such situations. Catheterization of the right side of the heart will show whether pulmonary hypertension and increase in pulmonary vascular resistance exist to a degree which may help explain the breathing difficulty. From catheterization of the left side of the heart it is often possible to estimate the degree of mitral and aortic stenosis as well as the existence of failure of the left ventricle.

PSYCHOGENIC FACTORS IN DYSPNEA

One must not forget that consciousness of breathing and disturbances in the respiratory rhythm are among the most common manifestations of anxiety neurosis and neurocirculatory asthenia. Moreover, paitents with heart disease are prone to have an added factor of such anxiety reaction grafted on the organic substratum of their disease which may explain their symptoms entirely or in large part.

COMMENT

In many, perhaps most, patients with dyspnea, the factors involved are multiple and interrelated; they often lead to acute attacks, as in pulmonary edema of cardiac origin, which can be prevented or broken up by a therapeutic attack at any one of several points.

The clinical evaluation of dyspnea is often simple and can be reached by a clinical estimate of the patient, including adequate history and physical examination, and easily performed tests. Occasionally more elaborate functional studies of the heart or lungs are necessary in order to determine the nature of the dyspnea. This is particularly true when the clinical picture is complicated, as in a combination of emphysema and chronic heart disease, or when the dyspnea is out of proportion to the clinical evidence of disease, as in a patient with mild mitral stenosis and severe dyspnea caused by an anxiety neurosis.

SUMMARY

The physiologic mechanisms underlying the production of the clinical symptom of dyspnea in pulmonary and in cardiac disease are described. Various tests of pulmonary and cardiac function are outlined and their usefulness in differential diagnosis is discussed.

REFERENCES

1. Christie, R. V.: Dyspnea in Relation to Visco-Elastic Properties of Lung, Proc. Roy. Soc. Med. 46:381-386 (May) 1953.

2. Cugell, D. W.; Abelmann, W. H.; and Gaensler, E. A.: Pulmonary Function in Cardiac Patient, M. Clin. North America 225-234 (Jan.) 1957.

3. Frank, N. R.; Cugell, D. W.; Gaensler, E. A.; and Ellis, L. B.: Ventilatory Studies in Mitral Stenosis; Comparison with Findings in Primary Pulmonary Disease, Am. J. Med. 15:60-76 (July) 1953.

4. Marks, A.; Cugell, D. W.; Cadigan, J. B.; and Gaensler, E. A.: Clinical Determination of Diffusion Capacity of Lungs; Comparison of Methods in Normal Subjects and Patients with "Alveolar-Capillary Block" Syndrome, Am. J. Med. 22:51-73 (Jan.) 1957.

5. Richards, D. W., Jr.: Lewis H. Conner Memorial Lecture, Nature of Cardiac and of Pulmonary Dyspnea, Circulation 7:15-29 (Jan.) 1953.

Dr. Ellis, 319 Longwood Avenue, Boston 15.

Considerations In the Management Of Certain Cardiac Arrhythmias

JAMES W. TUNSTILL, M.D.

Fort Worth, Texas

IN THIS rather brief presentation of a broad subject attention is directed for the most part to the more common arrhythmic disturbances and the more cardinal features concerning diagnosis and therapy of each.

The etiologic and pathogenetic mechanisms evolving the ectopic rhythms are manifold: tobacco, coffee, alcohol, peptic ulcer disease, biliary tract disease, fatigue, emotional states, surgery, anesthesia, drugs, electrolyte disturbances, coronary artery disease, infections, pregnancy,[18] and cardiac catheterization.[14]

Despite an increase in the pharmacologic armamentarium for the management of ectopic rhythms, considerable controversy is still present in various localities. This unfortunate situation has done little for the dilemma of the practitioner who is often faced with the problem of quickly and successfully terminating an arrhythmia. It is important to realize that not all the arrhythmias require treatment. On the other hand many of the arrhythmias constitute emergencies and require prompt and often lifesaving measures.

METHODS OF MANAGEMENT

Most of the cardiac arrhythmias can be managed by one or a combination of the following: sedation, carotid sinus pressure, digitalis, quinidine, and Pronestyl.[10] Sedation has been emphasized in recent years. The evidence in its support is becoming more and more convincing. Barbiturates distinctly reduce the tendency of the heart to develop ectopic rhythms.[17] It is perhaps through suppression of noxious hypothalamic stimuli that sedation is effective therapy. Experimental studies lend support to hypothalamic influences upon cardiac rhythm: Intraventricular administration of drugs into the third ventricle of unanesthetized dogs results in many of the arrhythmias that are seen as manifestations of cardiotoxicity of the

respective drugs[19] (strophanthin K and quinidine). The same drug dosage administered intravenously had little or no effect on the electrocardiogram. Quinidine intraventricularly blocked or modified the effect of intraventricular strophanthin. Hexamethonium given intravenously successfully blocked the effect of intraventricular strophanthin and quinidine. Intravenous Pronestyl, quinidine, and sodium Nembutal were effective in terminating or modifying the effects of intraventricular strophanthin. Also interesting is an experiment in which intravenous Dilantin successfully abolished ouabain-induced ventricular tachycardia in unanesthetized dogs.[15]

Carotid Sinus Pressure.—Carotid sinus pressure is about 80 per cent effective in paroxysmal auricular tachycardia.[3] It is also useful as a diagnostic aid in auricular flutter; here it suppresses ventricular activity by increasing the degree of auriculoventricular block thereby exposing the flutter waves more clearly. It is of no diagnostic help, however, in instances of flutter with 1:1 conduction. The diagnosis of these rather rare cases of 1:1 flutter is suggested by the very rapid ventricular rate of 225 to 370 per minute.[4] Carotid sinus pressure is helpful in distinguishing paroxysmal auricular tachycardia with auriculoventricular block from auricular fibrillation.[12] Here again the degree of auriculoventricular block is increased bringing out the nonconducted P waves. The effect of carotid sinus pressure is augmented by digitalis and Prostigmin. Approximately one-fourth to one-third of the dose needed for digitalization is effective in increasing the effectiveness of carotid sinus pressure. Carotid pressure is rendered less effective by sympathomimetic drugs, quinidine[3] and Demerol.[5]

Ocular Pressure and Emetics.—Ocular pressure is effective in some instances of paroxysmal auricular tachycardia, but is failing in popularity because of the danger of retinal detachment[17] and other potential ocular injuries. Ipecac as an emetic is effective in some instances of paroxysmal auricular tachycardia, but is also waning in popularity because (a) it tends to obtund the oral route for further therapy, (b) it aggravates the condition of an already ill patient, and (c) the vomiting produced may be prolonged. The use of apomorphine is now rare and may be harmful.[3]

Drugs for Special Circumstances.—Useful under special circumstances are Neosynephrine, methoxamine (Vasoxyl), Prostigmin, ipecac, potassium salts, antihistamines, and acetylcholine. Mecholyl is regarded as a dangerous drug, certainly never to be used in the home.

Dr. James W. Tunstill, Fort Worth internist, presented this paper for the Section on General Practice at the annual session of the Texas Medical Association in Dallas, April 29, 1957.

The therapeutic armamentarium useful in paroxysmal cardiac arrhythmias is increasing, but divergent views on therapy remain. Not all the arrhythmias require treatment, but prompt therapy in others may be lifesaving. Digitalis appears to be the most universal drug for the arrhythmias with quinidine a close second.

TYPES OF ARRHYTHMIAS

Paroxysmal Auricular Tachycardia.—Of all the paroxysmal tachycardias certainly auricular paroxysmal tachycardia is the most therapeutically controversial. Simple measures should be utilized first before proceeding with those in controversy. In the first category are carotid sinus pressure, gagging, and the Flack maneuver—either separately or in combination, utilizing a bystander as an assistant. Beyond this stage begins a myriad of other methods. Beller[3] has expressed favor next for the use of Prostigmin intramuscularly followed by an additional attempt at carotid sinus pressure. Prinzmetal has proposed as an alternate next step the administration of 3 grains of Nembutal with 6 grains of quinidine and waiting a few hours.[16] Either of these techniques is good, the choice depending on the situation. Katz has taken a more vigorous view in declaring quinidine the drug par excellence, but has conceded to digitalis in some instances.[8] Digitalis has been considered by Levine[11] to be the treatment of choice if simpler means of vagal stimulation have failed. This last view is the one most popularly held. Cedilanid is the digitalis preparation most frequently used in arrhythmic therapy.[16] Digitalis is about 88 to 90 per cent effective. The intravenous or intramuscular use of Cedilanid depends on the situation, but is more commonly used intravenously. Initially 0.8 mg. should be given followed by 0.4 mg. doses at two hour intervals if necessary. After each dose carotid sinus pressure should be applied because of the enhancement of this reflex by digitalis. If digitalis fails then quinidine, Pronestyl, Neosynephrine, and acetylcholine may be tried in this respective order. Mecholyl is decidedly too dangerous for use except under exceptional circumstances. The exact place of Neosynephrine and other sympathomimetic amines is not well delineated in the literature. The simplicity of Neosynephrine is naturally conducive to its use; however, Katz,[8] Beller,[3] and Prinzmetal[16] definitely have not considered it the treatment of choice. Probably its use had best be limited to very stubborn attacks or in frequently recurring episodes which are not prevented by the usual prophylactic measures. Prinzmetal has recommended

the use of pressor drugs if shock is an associated finding.[16] Quinidine, Pronestyl, and digitalis may all be tried prophylactically for recurrent attacks. All underlying causative factors should be eliminated if possible. Thoracic sympathectomy may be necessary in stubborn cases.[20]

Paroxysmal Auricular Tachycardia with Auriculoventricular Block.—Paroxysmal auricular tachycardia with auriculoventricular block is often seen in instances of hypopotassemia, in digitalis intoxication, and in combination form with subclinical overdosage of digitalis when conditions are present that result in loss of potassium. Such loss may occur through diuresis, vomiting or diarrhea, use of steroids, and so forth. An ideopathic variety has been reported by Lown and Levine[12] which is a benign condition requiring no treatment. Carotid sinus pressure aids in the diagnosis of this arrhythmia since it may simulate closely auricular fibrillation. The management comprises the use of intravenous potassium chloride, but Pronestyl is also similarly effective. Hearts so afflicted from digitalis intoxication are usually seriously diseased (Levine), and mortality rates in excess of 50 per cent are not uncommon. The diagnosis should always be suspicioned in cases of refractory congestive heart failure, hypopotassemic states, and with an increase in heart rate with the administration of digitalis.

Auricular Flutter.—Auricular flutter occurs almost exclusively in diseased hearts except in certain unusual cases with paroxysmal 1:1 conduction.[4] In my experience it is not unusual to observe cases of impure flutter or flutter-fibrillation precipitated by febrile conditions (pneumonia, genitourinary infections) in cardiac patients who have normal sinus rhythm ordinarily and who are relatively asymptomatic prior to the abrupt onset of the arrhythmia. Elderly patients afflicted with paroxysmal auricular flutter with rapid ventricular rates more or less characteristically have a complete change of facial expression which assumes somewhat the mask facies of Parkinsonism. They are usually observed to be restless and their entire clinical picture changed. Auricular flutter is relatively rare in children and, when present, usually associated with congenital heart disease with atrial septal defect or fibroelastosis. Carotid sinus pressure is a definite aid in the diagnosis. Quinidine should never be used initially in therapy because of the likelihood of producing the dangerous 1:1 auriculoventricular conduction. This same consideration should be given to meperidine (Demerol) which has a quinidine-like action. In my experience these patients tend to exhibit an unusual sensitivity to morphine also and may develop Cheyne-Stokes breathing precipitously. In management digitalis should be used initially followed by quinidine and Pronestyl if digitalis fails. Digitalis produces normal sinus rhythm in 80 to 85 per cent of the cases and auricular fibrillation in the other 15 to 20 per cent.

Auricular Fibrillation.—Auricular fibrillation is usually associated with hypertension, arteriosclerotic heart disease, and rheumatic heart disease, but occurrences in normal hearts are not infrequent. In idiopathic cases thyrotoxicosis should always be kept in mind. A valuable diagnostic aid in this condition is found in the electrocardiogram where the T wave contour is seen to be constantly changing, even when all the QRS complexes look alike. Instances of auricular fibrillation with slow rates and no congestive failure usually require no treatment. Fibrillation associated with embolism constitutes an emergency for conversion to normal sinus rhythm.[16] Such conversion frequently prevents further embolization. In consideration of cases for conversion it is well to consider the etiology, duration, symptomatic status, and degree of cardiac enlargement. Cases requiring large doses for conversion refibrillate easily. Postcomissurotomy development of fibrillation is frequently difficult or impossible to convert.[9] The usual management of fibrillation is digitalis, followed by quinidine and/or Pronestyl as the occasion indicates. Digitalis often results in sinus rhythm in the paroxysmal type. Usually best results in conversion are obtained by the use of quinidine administered at two hour intervals for 5 doses, increasing the amount daily. Hellman and others[6] have recommended switching from digitalis to quinidine in cases with shock and rapid rates if the ventricular rate is not slowed within 30 to 60 minutes.

Preoperative Patients.—It is important that all patients subject to attacks of rapid ectopic rhythms be given digitalis prior to surgery. Similarly it is important to attempt conversion in all instances of flutter during the preoperative period. It is not necessary to convert all cases of auricular fibrillation.[7] Correction of all electrolyte disturbances, especially potassium, should be accomplished.

Ventricular Tachycardia.—Ventricular tachycardia is most frequently associated with myocardial infarction, and the imperativeness of treatment is generally appreciated. Cases of bidirectional ventricular tachycardia are often due to digitalis and often terminate fatally.[3] Pronestyl is probably the best first choice drug in therapy. Next are quinidine, magnesium sulfate, potassium salts, or intravenous Benadryl. The intravenous use of either Pronestyl or quinidine had best be reserved for the more critical situations. A monitoring electrocardiogram always should be used in treating this condition. Intramuscular Pronestyl, 1 to 2 Gm., with doses repeated in three to six hours has been recommended. Quinidine administration, oral or intramuscular, in doses of 0.4 to 0.6 Gm. every one to two hours for 5 to 8 doses also has been advocated. Electrocardiographic monitoring is necessary before each dose.

Pseudoventricular Tachycardia.—Often confused with ventricular tachycardia are other rapid cardiac rhythms. Among the more common of these are bundle-branch block with a rapid supraventricular rhythm and also instances of auricular tachycardia, fibrillation, and flutter in patients exhibiting the Wolf-Parkinson-White syndrome and in sinus tachycardia with aberration of the QRS complexes and repetitive attacks of paroxysmal tachycardia with aberration. Long strips of electrocardiographic tracings, esophageal leads, and listening for varying intensity of the first heart sound constitute about the only means of differentiation. Bellet has expressed the opinion that digitalis does not necessarily worsen a ventricular tachycardia except in those instances in which the tachycardia is likely due to digitalis.[3] This fact should be kept in mind in urgent situations when an electrocardiogram is not available within a reasonable length of time.

Auricular flutter and auricular tachycardia associated with myocardial infarction carry a high mortality rate and should be treated vigorously.[1, 2]

SUMMARY

The armamentarium of drugs used in therapy of the arrhythmias has been seen to be steadily mounting. Some of these drugs are rather uniformly safe while others are attended with at least some hazard. The bulk of the arrhythmias can be managed by simple measures or a very few drugs. Digitalis appears to be the most universal drug for the paroxysmal arrhythmias with quinidine running a close second. Certainly in the absence of an electrocardiogram in very urgent situations digitalis appears to be the drug of choice. Caution is emphasized in the management of auricular flutter regarding quinidine and meperidine. Sedation is emphasized and its relationship to hypothalamic influences is suggested. The controversial aspects of paroxysmal auricular tachycardia management is discussed. It is always well to remember that not all the arrhythmias require treatment.

REFERENCES

1. Askey, J. M.: Auricular Paroxysmal Tachycardia in Association with Myocardial Infarction, Am. Heart J. 37:425-434 (March) 1949.
2. Askey, J. M.: Auricular Flutter in Association with Myocardial Infarction, Its Prognosis and Management, Am. J. Med. 6:453-461 (April) 1949.
3. Bellet, S.: Clinical Disorders of Heart Beat, Philadelphia, Lea and Febiger, 1953, pp. 126, 127, 130, 131, 208, 216.
4. Finkelstein, D.; Gold, H.; and Bellet, S.: Atrial Flutter with 1:1 A-V Conduction; Report of Six Cases, Am. J. Med. 20:65-76 (Jan.) 1956.
5. Harvey, W. P.; Berkman, F.; and Leonard, J.: Caution Against Use of Meperidine Hydrochloride (Isonipecaine, Demerol) in Patients with Heart Disease, Particularly Auricular Flutter, Am. Heart J. 49: 758-769 (May) 1955.
6. Hellman, E.; Altchek, M. R.; and Enselberg, C. D.: Treatment of Urgent Cases of Paroxysmal Auricular Fibrillation; Proposed Method for Aiding in Choice Between Digitalis and Quinidine, Am. J. M. Sc. 221:655-660 (June) 1951.
7. Janton, O. H.; Glover, R. P.; O'Neill, T. J. E.; Gregory, J. E.; and Froio, G. F.: Results of Surgical Treatment for Mitral Stenosis; Analysis of 100 Consecutive Cases, Circulation 6:321-333 (Sept.) 1952.
8. Katz, L. N., and Pick, A.: Clinical Electrocardiography, Part 1: Arrhythmias with Atlas of Electrocardiograms, Philadelphia, Lea and Febiger, 1956, p. 281.
9. Kennamer, R., and Prinzmetal, M.: Cardiac Arrhythmias, New England J. Med. 250:509-520 (March 25) 1954.
10. Kennamer, R., and Prinzmetal, M.: Cardiac Arrhythmias, New England J. Med. 250:562-571 (April 1) 1954.
11. Lown, B., and Levine, S. A.: Current Concepts in Digitalis Therapy, New England J. Med. 250:771-778 (May 6) 1954.
12. Lown, B., and Levine, S. A.: Current Concepts in Digitalis Therapy, New England J. Med. 250:819-832 (May 13) 1954.
13. Lown, B., and Levine, S. A.: Current Concepts in Digitalis Therapy, New England J. Med. 250:866-874 (May 20) 1954.
14. Michel, J. C., and others: Arrhythmias During Intracardiac Catheterization, Circulation 2:240-244 (Aug.) 1950.
15. Mosey, L., and Tyler, M. D.: Effect of Diphenylhydantoin Sodium (Dilantin), Procaine Hydrochloride, Procaine Amide Hydrochloride, and Quinidine Hydrochloride upon Ouabain-Induced Ventricular Tachycardia in Unanesthetized Dogs, Circulation 10:65-70 (July) 1954.
16. Prinzmetal, M., and Kennamer, R.: Emergency Treatment of Cardiac Arrhythmias, J.A.M.A. 154:1049-1054 (March 27) 1954.
17. Scherf, D.: Treatment of Cardiac Arrhythmias, Circulation 8:756-768 (Nov.) 1953.
18. Szekely, P., and Snaith, L. M.: Paroxysmal Tachycardia in Pregnancy, Brit. Heart J. 15:195-198 (April) 1953.
19. Weinberg, S. J., and Haley, T. J.: Centrally Mediated Effects of Cardiac Drugs; Strophanthin-K, Quinidine, and Procaine Amide, Circulation Research 3:103-109 (Jan.) 1955.
20. White, J. C., and Bland, E. F.: Control of Paroxysmal Auricular Tachycardia by Sympathectomy, Lyon Chir. 45:395-402 (May-June) 1950.

Dr. Tunstill, 603 College, Fort Worth 4.

The Anemias

Diagnosis and Treatment

CHARLES T. STONE, M. D., F.A.C.P.

Galveston, Texas

ANEMIAS, in one form or another, are frequently encountered by physicians both in general practice and in the various specialties. Furthermore, their presence often has an important connotation with respect to the patient's major medical problem, either from the etiologic viewpoint or as a result of a primary disease. The importance of anemias in obstetrics, surgery, urology, ophthalmology, and neuropsychiatry, to mention a few specialties, is of equal significance to their presence in the general run of patients in internal medicine and general practice. Thus, all physicians should be keenly aware of the clinical implications of anemia in order that appropriate measures of control based on adequate diagnostic study may be employed as indicated. For example, in the presence of severe infections the out-

come to a considerable extent may be dependent upon the maintenance of a good blood count which assures a satisfactory transport system to the tissues. Similarly, many patients under consideration for major surgical procedures of necessity must be restored to a normal hematologic status before they can be classified as acceptable operative risks.

From the purely clinical point of view, anemia may be said to exist when the hemoglobin falls to a level below 12 Gm. per 100 ml. in adult women and below 13 Gm. per 100 ml. in adult men. Actually, the term anemia is far more inclusive, but for clinical purposes this designation is sufficient. With the reduction in hemoglobin there is usually, but not always, a reduction in the number of red blood cells. In states of normal health red blood cells are constantly undergoing destruction, probably, to a considerable extent, from the trauma to which they are subjected in the vascular bed (particularly in the capillaries, the diameter of which may be smaller than that of the erythrocyte), as well as from aging. The normal red blood cell has a life span of about 120 days. As the red cells undergo destruction, they are replaced by new cells from the hematopoietic centers in the red bone marrow. In the process of destruction, largely a function of the reticuloendothelial system, most of the constituents of the red cell, except part of the pigment, are conserved and re-used by the bone marrow. It is the precise adjustment between erythrocyte destruction in the circulation and production in the bone marrow that maintains the blood count at normal levels. Departure from normal in either the rate of red cell destruction or production ultimately results in anemia.

Dr. Charles T. Stone, professor of internal medicine, University of Texas Medical Branch, presented this paper for the Section on General Practice April 30, 1957, at the annual session of the Texas Medical Association in Dallas.

Anemia constitutes an important problem for the physician. Treatment of anemia without determining its type and cause may be ineffective or even dangerous The blood in macrocytic, hyperchromic anemias contains a greater concentration of hemoglobin than normal; microcytic, hypochromic anemias are typically of the iron deficiency type; normocytic, normochromic anemias usually are due to bone marrow hypofunction.

There is the capacity for greatly increased production of red blood cells—up to seven times the normal[5]—by the marrow in the event of excessive red blood cell destruction. Therefore, a normal blood count may exist even though both red cell destruction and production are accelerated. The characteristics of increased destruction are increased serum bilirubin of the indirect type, increased urine and fecal urobilinogen, and a hyperactive bone marrow with a resulting increase of reticulocytes in the peripheral blood.

Anemia, like many other evidences of disturbed states of health such as fever, palpitation, headache, malaise, and weakness, should not be regarded per se as a diagnosis. Most anemias are caused by some condition which interferes with the balance between red blood cell production and destruction. Appropriate methods of study, available in the average clinical laboratory, will establish the type of anemia in most cases and suggest its rational therapy. Indeed, until the exact cause and type of anemia are known, treatment not only may be ineffective, but under certain circumstances may even prove dangerous by delaying the application of appropriate measures of management. Certain internal carcinomas, especially those of the gastrointestinal tract, for a prolonged period may have as their chief clinical manifestation a hypochromic, microcytic anemia. Delay in recognizing the cause of an anemia of such origin might mean the difference in a favorable or hopeless outcome. In the case of addisonian hyperchromic, macrocytic anemia the delay in institution of proper therapy may permit the development of combined system degeneration in the spinal cord.

In beginning the laboratory examination of a patient, ambulatory or otherwise, a routine blood count should be obtained. This should include the hemoglobin in grams per 100 milliliters of blood, the red blood cell count per cubic millimeter, the hematocrit, and the white blood cell and differential cell counts. With these basic values it is a simple matter to determine the red cell size, mean corpuscular volume (MCV), the mean corpuscular hemoglobin (MCHb), and the mean corpuscular hemoglobin concentration (MCHbC). It should be borne in mind that these results are correct only to the extent that the routine blood count on which they are based is accurate. With the values of mean red cell size and hemoglobin content the physician can tell at once whether the anemia in question is macrocytic, hyperchromic; microcytic, hypochromic; or normocytic, normochromic. This is information of fundamental importance since it enables the doctor to limit sharply the diagnostic possibilities in given cases.

MACROCYTIC, HYPERCHROMIC ANEMIAS

The anemias distinguished by large red cells containing a greater concentration of hemoglobin than

normal (macrocytic, hyperchromic) are limited to a few clear-cut types, as noted in table 1. In these anemias there is usually present, in addition to the macrocytosis and hyperchromia, an increase in serum bilirubin of the indirect type due to a rapid rate of

TABLE 1.—*Classification of Macrocytic, Hyperchromic Anemias.*

Type	Cause
Addisonian pernicious anemia	Vitamin B_{12} deficiency.
Total gastrectomy	Vitamin B_{12} deficiency.
Diphyllobotrium latum (fish tapeworm infestation)	?
Nutritional anemia	Folic acid deficiency.
Tropical anemia	Folic acid deficiency.
Pernicious anemia of pregnancy	Folic acid deficiency.
Sprue	Folic acid deficiency due to faulty absorption.
Multiple small intestine strictures	Folic acid deficiency due to faulty absorption.
Ileitis	Folic acid deficiency due to faulty absorption.

destruction of immature erythrocytes in the blood stream. This may impart a characteristic lemon yellow discoloration to the skin and scleras. The addisonian pernicious type invariably has a histamine-fast achlorhydria whereas the other forms may and frequently do have free hydrochloric acid in the gastric secretion. Finally, the presence of symptoms and signs of combined system degeneration in the spinal cord clinches the diagnosis of pernicious anemia. There is a precaution which should be considered; namely, carcinoma of the stomach and at times other cancers of the digestive tract may be associated with both gastric achlorhydria and a macrocytic, hyperchromic anemia. Their possibility obviously should be borne in mind.

The treatment of addisonian pernicious anemia is with vitamin B_{12} in initial doses of 30 to 60 micrograms parenterally daily for the first 10 to 14 days, then weekly for six to eight weeks, followed by a maintenance dose of a like amount at monthly intervals. An early reticulocyte response beginning in three to five days and lasting about 10 to 14 days, proportional to the severity of the anemia, is conclusive proof of the accuracy of the diagnosis. Iron is not needed in the treatment of pernicious anemia. By the same token "shot-gun" mixtures of liver extract, stomach extract, iron, cobalt, copper, vitamin B_{12}, folic acid, and other additions are illogical and unnecessary; vitamin B_{12} is specific. Folic acid usually will produce a satisfactory hematologic response in pernicious anemia, but it cannot be relied upon to correct or prevent neurologic relapses. In fact it has been claimed that folic acid may precipitate severe neurologic relapse.[1]

What has been said with respect to the treatment of pernicious anemia applies to the macrocytic, hyperchromic type that may follow total gastrectomy.

The remaining forms of this type of anemia, particularly the nutritional form and that encountered in sprue and the so-called pernicious anemia of pregnancy, are often refractory to vitamin B_{12} but show a satisfactory response to treatment with folic acid.

It should be emphasized that in this group of anemias as a whole the main fault lies in a maturation arrest of the erythroid elements in the bone marrow, the effective treatment for which is specific for all practical purposes. In those cases in which doubt exists, a study of the marrow obtained by sternal biopsy seldom fails to provide helpful diagnostic information, but it is not needed in the average case. In some instances inadequate treatment or that not founded on satisfactory diagnostic criteria may mask the classic picture of the disease to the extent that the diagnosis may present unusual difficulties.

MICROCYTIC, HYPOCHROMIC ANEMIAS

The anemias which are characterized by hypochromia and microcytosis are typically of the iron deficiency type. They constitute the largest number of anemias encountered and are due to multiple etiologic factors, the commonest of which is chronic blood loss. Laboratory studies supply the necessary diagnostic criteria, and a well taken history and carefully made physical examination, together with additional data obtained from the clinical laboratory and roentgenograms, provide the requisite factors for arriving at a correct conclusion as to the cause. Numerically, most microcytic, hypochromic anemias occur in women for the simple reason that they lose an appreciable amount of iron with each menstrual period. If the loss happens to be excessive, anemia of this type ensues. In men the most common cause of chronic blood loss with resulting anemia is peptic ulcer or some other ulcerative lesion in the gastrointestinal tract. Watson's classification of the iron deficiency anemias[3] appears in table 2.

With all of the factors included in table 2 in mind, as well as the history, physical examination, and facts obtained by special methods of examination, it is usually an easy matter to make an accurate diagnosis of microcytic, hypochromic anemia and to determine its cause. Where a definite etiologic factor such as chronic blood loss is involved or there are other obvious causes such as infection, chronic diarrhea, and lead poisoning, rational therapy demands their correction. In those microcytic, hypochromic anemias (idiopathic?) associated with inadequate intake of iron, achlorhydria, pregnancy, and certain other conditions such as avitaminosis, an approach should be toward palliation of the associated disorder

plus the oral administration of ferrous iron. In these anemias iron stands in the same position with respect to enabling the bone marrow to produce a normal peripheral blood as does vitamin B_{12} (the erythrocyte maturing factor) in addisonian pernicious anemia. Liver, stomach extract, vitamin B_{12}, and folic acid have no part in the treatment of microcytic, hypochromic anemias. Alleviation of the cause and the administration of ferrous iron are sufficient.

TABLE 2.—*Watson's Classification of the Iron Deficiency Anemias.*

1. Inadequate intake:
   Nutritional.
2. Inadequate absorption:
   Achlorhydria.
   Rapid intestinal motility as in diarrhea and "dumping syndrome."
3. Excessive loss:
   Chronic bleeding.
4. Inadequate utilization:
   Infection:
   Lead poisoning:
   Thalassemia (Cooley's anemia).
5. Increased requirements:
   Pregnancy.

From Watson, R. J., and Lichtman, H. C.: Anemias, M. Clin. North America 39:735-749 (May) 1955.

Experience has shown that optimum blood regeneration follows the daily administration of an iron salt containing 25 mg. of utilizable iron. This is most economically and effectively obtained from 333 mg. (5½ grains) of anhydrous ferrous sulfate. Ordinary ferrous sulfate would require 600 mg. (10 grains), ferrous carbonate 800 mg. (12 grains), ferrous gluconate 1,000 mg. (15 grains), and ferric ammonium citrate 7,000 mg. (105 grains) to supply the required 25 mg. of utilizable iron.[2]

Occasionally, iron absorption through the intestinal mucosa is inadequate for replenishing the deficiency in the blood, and it may be necessary to administer either a saccharated iron oxide preparation intravenously or an iron-dextran preparation intramuscularly. The instances in which this is necessary are rare and can be determined only after a thorough trial and failure with iron given orally. It should be noted that severe and at times even fatal reactions have occurred from iron given intravenously. The initial dose of intravenous saccharated iron oxide is 50 mg., and this may be increased to 100 mg. once or twice weekly. Since very little iron is ever excreted from the body—1 mg. per day on the average—caution must be exercised that too much iron is not given intravenously. The total amount furnished by this route rarely should exceed 500 to 800 mg.; usually considerably less is enough.

NORMOCYTIC, NORMOCHROMIC ANEMIAS

Normocytic, normochromic anemias as a rule are due to bone marrow hypofunction, and may be classified on an etiologic basis, as in table 3.[3]

It is at once apparent that in this form of anemia the cause must be sought, and when found either treated by appropriate methods or eradicated, if possible. Thus, in those cases due to chemical or physical injury to the marrow, the patient must be prevented from further exposure to the causative agent. Bone marrow biopsy may afford the clue to the cause and indicated line of therapy in those cases due to the presence of abnormal tissue in the marrow. When hormonal factors stand in the etiologic role, their existence must be established and, if possible, corrected. For instance, there is nothing more gratifying than the response of the anemia of hypothyroidism following the correction of the hypometabolic state or the prompt recovery after splenectomy in hypersplenism.

TABLE 3.—*Etiologic Classification of Normocytic, Normochromic Anemias.*

1. Chemical or physical injury to marrow.
   X-irradiation.
   Radioactive substances.
   Nitrogen mustards.
   Thiourea compounds.
   Benzin.
   Heavy metals.
   Sulfa drugs.
   Chloramphenicol (Chloromycetin).
   Phenylbutazone (Butazolidin).
2. "Myelophthisic" due to presence of abnormal tissue in the marrow.
   Metastatic neoplasms.
   Multiple myeloma.
   Lymphoma.
   Leukemia.
   Lipoidosis.
   Osteosclerosis.
   Myelofibrosis.
3. Metabolic inhibition.
   Uremia.
   Infection.
   Chronic liver disease.
   Malignancy.
4. Hormonal factors.
   Hypersplenism ?
   Hypopituitarism.
   Hypothyroidism.
5. Idiopathic.
   Refractory anemia.

From Watson, R. J., and Lichtman, H. C.: Anemias, M. Clin. North America 39:735-749 (May) 1955.

HEMOLYTIC ANEMIA

Hemolytic anemia is a classic example of anemia due to excessive blood destruction since in this form the red blood cells have a shorter than normal survival time. As a rule it is a normocytic anemia. It

may be either (1) hereditary, for example, congenital hemolytic anemia, or (2) acquired, from many causes. It is characterized by normocytic anemia, hyperbilirubinemia, reticulocytosis, increased amounts of urobilinogen in the urine and feces, and an erythroid hyperplasia in the bone marrow. Generally, the hereditary types are due either to intracorpuscular defects, for example, the spherocytosis of hereditary hemolytic anemia, or to the target cells of thalassemia (Cooley's Mediterranean anemia).

In the past decade and a half a considerable amount of information has been developed with respect to anemias resulting from an abnormal structure of the hemoglobin molecule. Normal hemoglobin is designated as the A type. The fetal (F) hemoglobin disappears from the infant's blood a few months after birth, but in certain conditions (thalassemia, leptocytosis) it may persist beyond the normal period and give rise to severe and even fatal hemolytic anemias. In sickle cell anemia 75 to 100 per cent of the hemoglobin is of the S type.[4] With the development of paper electrophoresis it has become a simple matter to determine the presence of abnormal hemoglobins. The clinician may derive some satisfaction from having arrived at the correct diagnosis, thus assuring himself and the patient that every reversible cause for the anemia has been eliminated, even though it is small comfort that there is no adequate therapy for many cases.

In the present generation knowledge of the Rh factor and its clinical implications has been developed. If Rh positive blood is transfused into an Rh negative recipient, anti-Rh-positive antibodies develop in the recipient's blood. Should a second transfusion of Rh positive blood be given to such a recipient, a severe hemolytic reaction may occur.

Erythroblastosis fetalis is now a well known complication in an infant born of a mother with Rh negative blood and a father with Rh positive blood. This means that all pregnant women should be Rh tested, and in those whose blood is Rh negative, testing of the husband's is carried out. When the mother has Rh negative blood and the father Rh positive, the anti-Rh-positive titer of the mother's blood should be determined, in order that the erythroblastotic infant might be anticipated. Thus, if needed, lifesaving replacement blood transfusions with Rh negative blood may be given to the infant in the immediate postpartum period.

In the majority of acquired hemolytic anemias a positive causative factor may be determined, such as the usual transfusion reaction, high titer of cold agglutinins, septicemia, phenylhydrazine, sulfa drugs, and malaria. Many of these anemias are the result of toxic injury of the red blood cells by the etiologic agent, whereas in others hemolysis results from antibodies attached to the red cells or free in the plasma. The Coombs' test is of great value in the study of these anemias. Yet some acquired hemolytic anemias do not have antibodies, and there is no discoverable cause. In no group of anemias is there greater need for thorough hematologic study, usually of a type not obtained in the general hospital or office laboratory. Since most of these anemias have a primary cause, the detection of it is mandatory. If, after thorough study, there is no assignable primary condition to which the hemolytic anemia may be secondary, empiricism suggests treatment with transfusions, steroid hormones, and in some cases splenectomy. It is in this latter group that results of therapy are often less than satisfactory.

CONCLUSIONS

In a summary fashion the basic facts concerning the anemias have been presented, together with their clinical and hematologic characteristics.

Emphasis has been given to the necessity for the prompt and accurate appraisal of the various types of anemia in order that their etiologic background may be determined with the idea of providing therapy based on sound principles at a time when in many instances, it might prove curative.

Since a majority of anemias are the result of faults in other body systems, the study of them often presents challenging opportunities for the exercise of wide clinical knowledge in many fields if the correct answer is to be found.

Indiscriminate treatment of the anemic patient is deplored, since it often postpones a determination of proper therapeutic regimens. Such ill conceived programs of treatment in the case of pernicious anemia may allow the development of irreversible spinal cord changes or in microcytic, hypochromic anemia may permit the progression of an internal cancer to a hopeless stage. In certain normocytic and normochromic anemias delay in the recognition of the causative toxic agent may allow its effect to be continued beyond the point of recovery.

Anemia in most cases is a result of an underlying cause, and before anemia can be treated intelligently, the cause must be diligently sought and, when found, appropriately treated.

REFERENCES

1. Chodos, R. B., and Ross, J. F.: Effects of Combined Folic Acid and Liver Extract Therapy, Blood 6:1213-1233 (Dec.) 1951.
2. Hagedorn, A. B.: Diagnosis and Treatment of Iron-Deficiency Anemia, M. Clin. North America 40:983-991 (July) 1956.
3. Watson, R. J., and Lichtman, H. C.: Anemias, M. Clin. North America 39:735-749 (May) 1955.
4. Wells, I. C., and Itano, H. A.: Ratio of Sickle-Cell Anemia Hemoglobin to Normal Hemoglobin in Sicklemics, J. Biol. Chem. 188: 65-74 (Jan.) 1951.
5. Wintrobe, M. M.: Anemia, Bleeding, and Lymphadenopathy, in Harrison, T. R.: Principles of Internal Medicine, vol. 2, New York, Blakiston-McGraw, 1954, pp. 198-201.

Dr. Stone, Department of Internal Medicine, University of Texas Medical Branch, Galveston.

Cadmium Shampoo Treatment Of Seborrheic Dermatitis

J. FRED MULLINS, M.D., and JAMES R. BARNETT, M.D.

Galveston, Texas

SINCE the specific etiology of seborrheic dermatitis has not been determined, the treatment still remains empirical. Recently, the time-honored remedies of resorcinol, sulfur, coal tar, and salicylic acid have been superseded by the sulfide salt of various metals, such as selenium. Lanolized detergents with sulfur and salicylic acid also have been an improvement over earlier therapeutic measures. Although these agents give good palliative results, one cannot be assured of a lasting result. The entity itself is characterized by remissions and exacerbations; therefore, the objective evaluation of these various agents has been very difficult.

The purpose of this study is to present the results obtained in 200 patients following the local use of 1 per cent cadmium sulfide in a detergent base (Capsebon, Pitman-Moore). This study has been confined to seborrhea of the scalp. Throughout this endeavor, we have tried to make a comparison between this preparation and other reputedly effective shampoos.

PROPERTIES OF CADMIUM SULFIDE AND TOXICOLOGIC STUDIES

Cadmium sulfide is rather inert, having a solubility of 1 microgram per cubic centimeter in water at 18 C. and is thought by some investigators to have an oligodynamic action against microbial organisms. Our pilot in vitro sensitivity studies do not corroborate this finding. The insolubility of this preparation should lend to stability, as well as to safety. To date, there have been no reports in the literature regarding toxicity of cadmium salts when applied topically. Since cadmium sulfide reacts with stomach acid to form cadmium chloride, a strongly emetic compound, its ingestion should cause no more toxicity than acute nausea and vomiting. One group[1] in studying urinary excretion found occasional increases in urinary cadmium after the use of the shampoo for a month or two. However, these were probably not significant since they did not vary much from normal persons. Traces of cadmium, interestingly enough, are found in many foods,[5] and its urinary excretion in normal persons may be expected to vary according to diet.

An ocular irritation study with dogs was done by Burch[2] employing cadmium sulfide and selenium disulfide. He used both diluted and undiluted preparations and found that the selenium was more inclined to give conjunctivitis, lacrimation, and reversible opacity of the cornea.

Burch and Blair[3] have shown that cadmium oxide in a .015 per cent diet mixture is an extremely effective treatment for ascariasis in swine. When the percentage reached a level of .03 per cent, the pigs showed a decrease in food intake, and when larger amounts were utilized, vomiting occurred. Forney and his associates,[4] in studying tissue levels of cadmium in pigs given ascaricidal doses of cadmium oxide, found less cadmium in kidney tissue than is found in human kidneys with no known exposure to cadmium. Inhalation studies, carried out by Potts and others,[6] showed minimal absorption of radioactive cadmium sulfide from deposits in lung tissue.

METHODS AND MATERIALS

The patients utilized in this study had a primary or associated complaint of moderate to severe seborrheic dermatitis of the scalp. Some of these persons presented the dry seborrhea sicca type and others presented the findings of seborrhea oleosa. There were nearly 300 patients who utilized this preparation; however, adequate records could be maintained only on 200. The patients were instructed to cleanse the scalp initially with soap or their regular shampoo. This was to be followed by two latherings of cadmium sulfide and the last application was to remain on the scalp for approximately 10 minutes. They were

Dr. J. Fred Mullins and his coauthor, from the Department of Dermatology (Dr. Mullins, director), University of Texas Medical Branch, presented this paper for the Texas Dermatological Society April 29, 1957, in Dallas.

A therapeutic shampoo containing 1 per cent cadmium sulfide gave good results in 77.5 per cent of 200 cases of moderate to severe seborrheic dermatitis of the scalp. There were no untoward reactions in these cases with the exception of 2 cases of possible contact dermatitis. The preparation produces no oiliness and is remarkably well accepted by patients.

The cadmium sulfide preparation (Capsebon) was furnished by the Pitman-Moore Company, Indianapolis.

instructed to use the preparation every three to seven days. The study covered a period of one year. All races were included in the study and the ages ranged from 2 months to 83 years.

RESULTS

Because this effective preparation does not necessarily give permanent cure, it was decided not to utilize the term "excellent" in describing the results. Even though certain cases demonstrated exceedingly remarkable results, they were placed in the category of "good" and further breakdowns were "fair" and "poor." The criteria by which we arrived at a quantitative estimate of our results were: absence of scaliness, lack of pruritus, and patient acceptance. As can be seen in table 1, from a total of 200 cases, 155 gave good results, 21 gave fair results, and 24 gave poor results or failures. Table 2 revealed 12 patients who utilized the shampoo base and this was compared with the cadmium suspension. Of the 2 patients who obtained good results, 1 felt that the base was superior and the other thought the two preparations were indistinguishable. The 2 patients who demonstrated a fair result seemed to put the two preparations on an equivalent basis. The 8 patients with poor results believed cadmium sulfide was definitely superior.

TABLE 1.—*Results of Treatment of 200 Cases of Seborrheic Dermatitis with Cadmium Shampoo.*

Results	No. Cases
Good	155
Fair	21
Poor	24
Total	200

TABLE 2.—*Results of Use of Cadmium Base in 12 Cases of Seborrheic Dermatitis.*

Results	No. Cases
Good	2
Fair	2
Poor	8
Total	12

As shown in table 3 cadmium sulfide was considered equally as good as selenium disulfide by 27 patients, but the over-all patient acceptance was in favor of the cadmium. In the majority of cases, specific antiseborrheic shampoos had not previously been employed, so comparison could be made only with nonmedicated shampoos. In no instance were the nonmedicated shampoos superior to cadmium sulfide suspension.

Two patients developed an erythematous, papular eruption following the use of this therapeutic shampoo. The eruptions were believed to be contact dermatitis since these persons gave 3 plus reactions to patch tests with the full-strength preparation. However, we were surprised to note that when they were subsequently patch tested three months later to the individual constituents, as well as the shampoo, they showed negative reactions.

TABLE 3.—*Selenium Disulfide and Cadmium Sulfide Comparison Group (60 Cases).*

Results	No. Cases
Equal results	27
Cadmium sulfide superior	6
Selenium disulfide superior	25
Both failures	2

DISCUSSION

This product is remarkably well accepted by the patients as an excellent, foamy shampoo, free from any objectionable odor. Another significant feature is the absence of oiliness of the hair following its use. There is no residual discoloration of gray hair. Our studies have covered a period of one year, and a large number of the patients have used this preparation regularly throughout this interval. No side reactions have been observed other than the 2 cases of possible contact dermatitis, and although this series of cases is not large, we believe that this is a safe preparation. It has not been suggested in this study that this is a definitive cure for seborrheic dermatitis of the scalp; however, it is considered to be an extremely useful agent in control of chronic or recurrent seborrhea of the scalp.

SUMMARY AND CONCLUSIONS

A therapeutic shampoo containing 1 per cent cadmium sulfide was found to give good results in 77.5 per cent, fair results in 10.5 per cent, and poor results in 12 per cent of cases of moderate to severe seborrheic dermatitis of the scalp. When possible a comparison was made with selenium disulfide and the results are herein reported. There were no untoward reactions in these cases with the exception of 2 cases of possible contact dermatitis. This preparation produces no oiliness and is remarkably well accepted by the patients as an elegant shampoo. Owing to the patient's inacceptance of some of the other therapeutic measures, it is believed that this is an important contribution to the treatment of seborrheic dermatitis of the scalp.

REFERENCES

1. Boyer, P. A., Jr.: Personal communication.
2. Burch, G. R.: Personal communication.
3. Burch, G. R., and Blair, H. E.: New Ascaricide for Swine, J. Am. Vet. M. Ass. 126:304-308 (April) 1955.

4. Forney, R. B.; Bunde, C. A.; and Burch, G. R.: Tissue Storage in Cadmium-Treated Pigs, Proc. Soc. Exp. Biol. & Med. 90:13-14 (Oct.) 1955.
5. Monier-Williams, G. W.: Trace Elements in Food, New York, John Wiley and Sons, Inc., 1950, p. 428.
6. Potts, A. M., and others: Distribution and Fate of Cadmium in Animal Body, Arch. Indust. Hyg. 2:175-188 (Aug.) 1950.

Dr. Mullins and Dr. Barnett, Department of Dermatology, University of Texas Medical Branch, Galveston.

MEDICAL NEWS

★ Coming Meetings

Texas Medical Association, Houston, April 19-23, 1958 (Executive Council, Sept. 8, 1957). Dr. Denton Kerr, Houston, Pres.; Mr. C. Lincoln Williston, 1801 North Lamar Blvd., Austin, Executive Secy.
American Medical Association, Interim Meeting, San Francisco, April 10-12, 1958. Dr. Dwight H. Murray, Napa, Calif., Pres.; Dr. George F. Lull, 535 North Dearborn, Chicago 10, Secy.

Current Meetings

AUGUST

No meetings have been reported for August.

SEPTEMBER

American Association of Obstetricians and Gynecologists, Hot Springs, Va., Sept. 5-7, 1957. Dr. F. Bayard Carter, Durham, N. C., Pres.; Dr. E. Stewart Taylor, University of Colorado School of Medicine, 4200 E. 9th, Denver, Secy.
American Congress of Physical Medicine and Rehabilitation, Los Angeles, Sept. 8-13, 1957. Dr. A. B. C. Knudson, Washington, D. C., Pres.; Dr. Frances Baker, 1 Tilton Ave., San Mateo, Calif., Secy.
American Hospital Association, Atlantic City, Sept. 30-Oct. 4, 1957. Dr. Albert W. Snoke, New Haven, Conn., Pres.; Dr. Edwin L. Crosby, 18 E. Division, Chicago, Executive Director.
American Society of Clinical Pathologists, New Orleans, Sept. 29-Oct. 4, 1957. Dr. J. L. Goforth, Dallas, Pres.; Dr. Clyde G. Culbertson, 1040-1232 W. Michigan, Indianapolis 7, Secy.
International College of Surgeons, U. S. Chapter, Chicago, Sept. 9-12, 1957. Dr. Curtice Rosser, Dallas, Pres.; Dr. Karl Meyer, 1516 Lake Shore Dr., Chicago, Secy.
Southwest Regional Cancer Conference, Fort Worth, Sept. 20-21, 1957. Dr. O. L. Morphis, 815 Medical Arts Building, Fort Worth, Chm.
Tri-State Medical Assembly, Shreveport, Sept. 12-13, 1957. Dr. H. O. Padgett, Marshall, Pres.; Dr. Jason Sanders, Sanders Clinic, Kings Highway, Shreveport, La., Secy.

Texas Academy of General Practice, Dallas, Sept. 22-25, 1957. Dr. George V. Launey, Jr., Dallas, Pres.; Mr. Donald C. Jackson, 1905 N. Lamar, Austin, Executive Secy.
Texas Industrial Medical Association, Houston, Sept. 26-28, 1957. Dr. Robert J. Potts, Houston, Pres.; Dr. Robert A. Wise, Box 2180, Houston, Secy.

National and Regional

American Academy of Allergy, Philadelphia, Feb. 3-5, 1958. Dr. W. B. Sherman, New York, Pres.; Dr. Francis C. Lowell, 65 E. Newton, Boston, Secy.
American Academy of Dermatology and Syphilology, Chicago, Dec. 7-12, 1957. Dr. Nelson P. Anderson, 2007 Wilshire Blvd., Los Angeles 5, Pres.; Dr. James R. Webster, 55 E. Washington, Chicago 2, Secy.
American Academy of General Practice, Dallas, Spring, 1958. Dr. Malcom E. Phelps, El Reno, Okla., Pres.; Mr. Mac F. Cahal, Volker Blvd. at Brookside, Kansas City 12, Executive Secy.
American Academy of Obstetricians and Gynecologists, Los Angeles, April 21-23, 1958. Dr. R. Gordon Douglas, New York, Pres.; Dr. John C. Ullery, Ohio State University Hospital, Columbus, Secy.
American Academy of Ophthalmology and Otolaryngology, Chicago, Oct. 13-18, 1957. Dr. Erling W. Hansen, Minneapolis, Pres.; Dr. W. L. Benedict, 100 First Ave. Bldg., Rochester, Minn., Secy.
American Academy of Pediatrics, Chicago, Oct. 7-10, 1957. Dr. Edgar E. Martmer, Grosse Point 30, Mich., Pres.; Dr. E. H. Christopherson, 1801 Hinman Ave., Evanston, Ill., Secy.
American Association for Maternal and Infant Health, 1960. Mr. Howard I. Wells, Jr., 116 S. Michigan Ave., Chicago 3, Executive Secy.
American Association for Thoracic Surgery, Boston, May 16-18, 1958. Dr. Brian Blades, Washington, D. C., Pres.; Dr. Hiram T. Langston, 600 S. Kingshighway, St. Louis 10, Mo., Secy.
American Association of Genito-Urinary Surgeons, Edgewater Park, Miss., April 23-25, 1958. Dr. George F. Cahill, New York, Pres.; Dr. W. J. Engel, 2020 E. 93rd, Cleveland, Secy.
American Cancer Society, New York, Oct. 30-Nov. 1, 1957. Dr. D. A. Wood, San Francisco, Pres.; Mr. M. R. Runyon, 521 W. 57th, New York, Executive Vice-Pres.
American College of Allergists, Atlantic City, April 20-25, 1958. Dr. Merle Moore, Portland, Ore., Pres.; Dr. David Thomas, 1467 Harper St., Augusta, Ga., Secy.
American College of Chest Physicians, San Francisco, June 18-22, 1958. Dr. Burgess L. Gordon, Philadelphia, Pres.; Mr. Murray Kornfeld, 112 E. Chestnut, Chicago 11, Executive Secy.
American College of Gastroenterology, Boston, Oct. 20-23, 1957. Dr. Arthur A. Kirchner, Los Angeles, Pres.; Mr. Daniel Weiss, 33 West 60th, New York 23, Executive Director.
American College of Physicians, Atlantic City, April 28-May 2, 1958. Dr. Walter L. Palmer, Chicago, Pres.; Mr. E. R. Loveland, 4200 Pine, Philadelphia 4, Secy.
American College of Radiology, Chicago, Feb. 5-8, 1958. Dr. Ira H. Lockwood, Kansas City, Pres.; Mr. W. C. Stronach, 20 N. Wacker Dr., Chicago 6, Executive Director.
American College of Surgeons, Atlantic City, Oct. 14-18, 1957. Dr. Daniel C. Elkin, Lancaster, Ky., Pres.; Dr. Michael L. Mason, 40 E. Erie, Chicago 11, Secy.
American Dermatological Association, Sun Valley, June 4-8, 1958. Dr. Clark W. Finnerud, Chicago, Pres.; Dr. Hamilton Montgomery, 200 1st, S.W., Rochester, Minn., Secy.
American Gastro-Enterological Association, Washington, D. C., May 30-31, 1958. Dr. M. W. Comfort, Rochester, Minn., Pres.; Dr. F. J. Ingelfinger, 65 E. Newton, Boston 18, Secy.
American Gynecological Society, Asheville, N. C., May 19-21, 1958. Dr. Howard C. Taylor, Jr., New York City, Pres.; Dr. A. A. Marchetti, 3800 Reservoir Rd., N.W., Washington 7, D. C., Secy.
American Heart Association, Chicago, Oct. 25-29, 1957. Dr. Edgar V. Allen, Rochester, Minn., Pres.; Mr. John D. Brundage, 44 E. 23rd, New York 10, Secy.
American Laryngological, Rhinological, and Otological Society, San Francisco, Calif., 1958. No 1957 meeting. Dr. Percy E. Ireland, Toronto, Ont., Canada, Pres.; Dr. C. S. Nash, 277 Alexander, Rochester 7, N Y., Secy.
American Neurological Association, Atlantic City, June 16-18, 1958. Dr. Israel S. Wechsler, New York, Pres.; Dr. Charles Rupp, 133 S. 36th, Philadelphia 4, Secy.
American Ophthalmological Society, White Sulphur Springs, W. Va., May 28-30, 1958. Dr. Walters Atkinson, Watertown, N. Y., Pres.; Dr. M. C. Wheeler, 30 W. 59th, New York 19, Secy.
American Orthopedic Association. Dr. David M. Bosworth, New York, Pres.; Dr. Harold A. Safield, 715 Lake St., Oak Park, Ill.
American Pediatric Society, Atlantic City, N. J., May 8-9, 1958. Dr. A. Ashley Weech, Cincinnati, Pres.; Dr. A. C. McGuinness, Room 1036, 2800 Quebec St., N.W., Washington 8, D. C., Secy.
American Proctologic Society, Los Angeles, June 29-July 3, 1958. Dr. Julius E. Linn, Birmingham, Pres.; Dr. Norman D. Nigro, 10 Peterboro, Detroit 1, Secy.
American Psychiatric Association, San Francisco, May 12-16, 1958. Dr. Harry C. Solomon, Boston 15, Pres.; Dr. William Malamud, 80 E. Concord, Boston 18, Secy.
American Public Health Association, Cleveland, Nov. 11-15, 1957. Dr. John W. Knutson, Washington, D. C., Pres.; Dr. R. M. Atwater, 1790 Broadway, New York 19, Executive Secy.
American Society of Anesthesiologists, Los Angeles, Oct. 14-19, 1957. Dr. Irving M. Pallin, Brooklyn, Pres.; Dr. J. E. Remlinger, Jr., 188 W. Randolph, Chicago 1, Secy.
American Surgical Association, New York, April 16-18, 1958. Dr. John Mulholland, New York, Pres.; Dr. William Altemeier, Christian R. Holmes Hospital 19, Cincinnati, Secy.
American Urological Association, New Orleans, April 29-May 1, 1958. Dr. William J. Baker, Chicago, Pres.; Dr. Samuel L. Raines, 188 S. Bellevue Blvd., Memphis, Tenn., Secy.
Association of American Physicians and Surgeons, Interim Meeting of Delegates, Oct. 18, 1957. Dr. Cyrus W. Anderson, Denver, Pres.; Mr. Harry E. Northam, 185 N. Wabash Ave., Chicago 1, Executive Secy.

National Tuberculosis Association, Philadelphia, May 24-29, 1958. Dr. William M. Morgan, Alliance, Ohio, Pres.; Mrs. Wallace B. White, 1790 Broadway, New York 19, Secy.

Radiological Society of North America, Chicago, Nov. 17-22, 1957. Dr. C. Edgar Virden, Kansas City, Pres.; Dr. Donald S. Childs, 713 E. Genesee, Syracuse 2, N. Y., Secy.

Southern Medical Association, Miami Beach, Nov. 11-14, 1957. Dr. J. P. Culpepper, Jr., Hattiesburg, Miss., Pres.; Mr. V. O. Foster, 1020 Empire Bldg., Birmingham 3, Secy.

Southern Psychiatric Association, Nassau, Oct. 6-8, 1957. William H. McCullagh, Jacksonville, Fla., Pres.; Dr. Joseph L. Knapp, 210 N. Westmoreland, Dallas, Secy.

Southern Surgical Association, White Sulphur Springs, West Va., Dec. 10-12, 1957. Dr. Floyd W. McRae, Atlanta, Pres.; Dr. George G. Finney, 2947 St. Paul, Baltimore, Secy.

Southwest Allergy Forum. Dr. Truman C. Terrell, Fort Worth, Pres.; Dr. Sim Hulsey, 701 Fifth Ave., Fort Worth, Secy.

Southwestern Medical Association, Houston, March 31-April 2, 1958. Dr. Kenneth C. Sawyer, Denver, Pres.; Dr. C. M. O'Leary, 207 Plaza Court Bldg., Oklahoma City, Secy.

Southwestern Society of Nuclear Medicine. Dr. Henry H. Turner, Oklahoma City, Pres.; Dr. J. R. Maxfield, Jr., 311 Medical Arts Bldg., Dallas, Secy.

Southwestern Surgical Congress, Houston, March 31-April 2, 1958. Dr. Kenneth C. Sawyer, Denver, Pres.; Dr. C. M. O'Leary, 207 Plaza Court Bldg., Oklahoma City, Secy.

State

Private Clinics and Hospitals Association of Texas. Dr. J. P. Anderson, Bradv, Pres.; Mr. C. H. Rugeley, Wharton, Secy.

Texas Academy of Internal Medicine, Houston, December, 1957. Dr. Jay C. Crager, Beaumont, Pres.; Dr. Hugo T. Engelhardt, 1216 Main, Houston, Secy. Meetings restricted to members.

Texas Air-Medics Association, Houston, April 20-21, 1958. Dr. W. D. Marrs, Fort Worth, Pres.; Dr. C. F. Miller, P. O. Box 1338, Waco, Secy.

Texas Association of Blood Banks. Dr. C. D. Fitzwilliam, Fort Worth, Pres.; Miss Marjorie Saunders, 3707 Gaston Ave., Dallas, Secy.

Texas Association of Obstetricians and Gynecologists, Galveston, February, 1958. Dr. Arthur M. Faris, Houston, Pres.; Dr. Oran V. Prejean, 4317 Oak Lawn, Dallas, Secy.

Texas Chapter, American Association of Public Health Physicians, Houston, April 20, 1958. Dr. Roy G. Reed, Victoria, Pres.; Dr. A. R. Doane, 410 E. 5th, Austin, Secy.

Texas Chapter, American College of Chest Physicians, Houston, April 20, 1958. Dr. John A. Wiggins, Fort Worth, Pres.; Dr. H. M. Anderson, 224 E. Harris, San Angelo, Secy.

Texas Club of Internists. Dr. Charles M. Darnall, Austin, Pres.; Dr. L. C. Carter, 2600 Procter, Port Arthur, Secy.

Texas Dermatological Society, El Paso, Oct. 12, 1957. Dr. Charles D. Stewart, Corpus Christi, Pres.; Dr. E. N. Walsh, 1310 Medical Arts Bldg., Fort Worth, Secy.

Texas Diabetes Association, Houston, April 20, 1958. Dr. H. T. Engelhardt, Houston, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.

Texas Division, American Cancer Society, Austin, Dec. 5-6, 1957. Dr. Porter Brown, Fort Worth, Pres.; Mr. Curt W. Reimann, 5014 Bull Creek Rd., Austin 3, Executive Director.

Texas Geriatrics Society, Houston, April, 1958. Dr. Martin S. Buehler, Dallas, Pres.; Dr. J. A. Armstrong, 3810 Swiss Ave., Dallas, Secy.

Texas Heart Association, Houston, April 20, 1958. Dr. James A. Greene, Houston, Pres.; Mr. Edgar M. Brown, 404 Jesse H. Jones Library Bldg., Texas Medical Center, Houston 25, Executive Director.

Texas Hospital Association. Bolton Boone, D.D., Dallas, Pres.; Mr. O. Ray Hurst, Executive Director, 2208 Main, Dallas, Secy.

Texas Neuropsychiatric Association, Dallas, Oct. 18-19, 1957 (with Central Neuropsychiatric Association). Dr. Bruce H. Beard, Fort Worth, Pres.; Dr. Clarence S. Hoekstra, 8215 Westchester Drive, Dallas, Secy.

Texas Ophthalmological Association, Houston, April 22, 1958. Dr. Thomas J. Vanzant, Houston, Pres.; Dr. Louis Daily, Medical Arts Bldg., Dallas, Secy.

Texas Orthopedic Association, Houston, April 21, 1958. Dr. Margaret Watkins, Dallas, Pres.; Dr. B. C. Halley, Jr., 524 Doctors Building, Dallas, Secy.

Texas Pediatric Society, Austin, Oct. 17-19, 1957. Dr. E. M. Wier, Fort Worth, Pres.; Dr. James N. Walker, 5216 W. Freeway, Fort Worth, Secy.

Texas Physical Medicine and Rehabilitation Society, Houston, April, 1958. Dr. Odon F. von Werssowetz, Gonzales, Pres.; Dr. Edward M. Krusen, Baylor Hospital, Dallas, Secy.

Texas Proctologic Society, Fort Worth, February, 1958. Dr. Hugh Beaton, Fort Worth, Pres.; Dr. C. P. Hardwicke, 920 E. 32nd, Austin, Secy.

Texas Public Health Association, Dallas, Feb. 23-26, 1958. Mr. J. N. Murphy, Jr., Austin, Pres.; Mr. H. E. Drumwright, City Health Department, Dallas, Executive Secy.

Texas Radiological Society, San Antonio, Jan. 24-25, 1958. Dr. T. G. Russell, Houston, Pres.; Dr. J. E. Miller, 6407 Forest Lane, Dallas 30, Secy.

Texas Rheumatism Association, Houston, Dec. 6, 1957. Dr. Jesse W. Hofer, Houston, Pres.; Dr. Warren W. Moorman, 901 W. Leuda, Fort Worth, Secy.

Texas Society for Mental Health, Houston, March 22-24, 1958. Dr. Virginia Love, Houston, Pres.; Mr. John Lane, 2510 San Antonio, Austin, Executive Director.

Texas Society of Anesthesiologists, Houston, April 20, 1958. Dr. J. D. McCulley, Houston, Pres.; Dr. Randle J. Brady, 3317 Binz, Houston, Secy.

Texas Society of Gastroenterologists and Proctologists, Houston, April 20, 1958. Dr. Tate Miller, Dallas, Pres.; Dr. O. P. Griffin, 1101 Medical Arts Bldg., Fort Worth, Secy.

Texas Society of Ophthalmology and Otolaryngology, Austin, Dec. 6-7, 1957. Dr. Owen R. O'Neill, Paris, Pres.; Dr. Edwin G. Grafton, 4319 Oak Lawn, Dallas, Secy.

Texas Society of Pathologists. Dr. Lloyd Hershberger, San Angelo, Pres.; Dr. Mervin H. Grossman, 3121 Bryan, Dallas, Secy.

Texas Society of Plastic Surgeons, Houston, April 19, 1958. Dr. Truman G. Blocker, Galveston, Pres.; Dr. Steve R. Lewis, University of Texas Medical Branch, Galveston, Secy.

Texas Surgical Society, Waco, Oct. 7-8, 1957. Dr. Truman G. Blocker, Galveston, Pres.; Dr. G. V. Brindley, Jr., Scott and White Clinic, Temple, Secy.

Texas Traumatic Surgical Society, Houston, April 20, 1958. Dr. Russell Holt, El Paso, Pres.; Dr. W. E. Crump, 1300 Eighth, Wichita Falls, Secy.

Texas Tuberculosis Association. Dr. Howard T. Barkley, Houston, Pres.; Miss Pansy Nichols, 2406 Manor Road, Austin, Executive Director.

Texas Urological Society. Dr. Jack Crow, Abilene, Pres.; Dr. Ian Thompson, John Sealy Hospital, Galveston, Secy.

United States-Mexico Border Public Health Association, Hermosillo, Sonora, Mexico, April, 1958. Malcolm H. Merrill, Berkeley, Calif., Pres.; Dr. Sidney B. Clark, 243 U. S. Court House, El Paso, Secy.

District

First District Society, February, 1958. Dr. W. A. Jones, El Paso, Pres.; Dr. E. S. Crossett, 309 Medical Arts Bldg., El Paso, Secy.

Second District Society. Dr. J. Vernon McKay, Lamesa, Pres.; Dr. Noble L. Rumbo, Box D, O'Donnell, Secy.

Third District Society, Amarillo, Spring, 1958. Dr. William Klingensmith, Amarillo, Pres.; Dr. H. Fred Johnson, 2308 W. Eighth, Amarillo, Secy.

Fourth District Society. Dr. Joe B. Stephens, Bangs, Pres.; Dr. S. H. Martin, 115 S. Park, San Angelo, Secy.

Fifth and Sixth Districts Society, Corpus Christi, 1958. Dr. Foy Moody, Corpus Christi, Pres.; Dr. Thelma Frank, 129 Rainbow Lane, Corpus Christi, Secy.

Seventh District Society. Dr. Robert N. Snider, Austin, Pres.; Dr. Richard Lucas, 502 W. 13, Austin, Secy.

Eighth District Society. Dr. E. Peter Garber, Galveston, Pres.; Dr. John Childers, Univ. of Texas Medical Branch, Galveston, Secy.

Ninth District Society, Conroe, Spring, 1958. Dr. Eugene M. Addison, Huntsville, Pres.; Dr. James H. Sammons, Highlands, Secy.

Tenth District Society, Port Arthur, Fall, 1957. Dr. Charles W. Castle, Liberty, Pres.; Dr. Richard O. Clements, 715 Main, Liberty, Secy.

Eleventh District Society. Dr. M. T. Braswell, Henderson, Pres.; Dr. Hugh F. Rives, Jacksonville, Secy.

Twelfth District Society. Dr. George C. Bryant, Waco, Pres.; Dr. J. T. Archer, Jr., Meridian, Secy.

Thirteenth District Society, Abilene, 1958. Dr. Roy Wilson, Seymour, Pres.; Dr. R. D. Moreton, 1217 W. Cannon, Fort Worth, Secy.

Fifteenth District Society. Dr. L. E. Rutledge, Daingerfield, Pres.; Dr. O. R. Taylor, Jr., Linden, Secy.

Clinics

Blackford Memorial Cancer Lectures, Denison, Nov. 5, 1957. Dr. R. G. Gerard, 509 S. Mirick, Denison, Chm.

Dallas Southern Clinical Society, Dallas, March 24-27, 1958. Dr. C. D. Bussey, Dallas, Pres.; Miss Helga Boyd, Medical Arts Bldg., Dallas 1, Executive Secy.

International Medical Assembly of Southwest Texas, San Antonio, Jan. 27-29, 1958. Dr. John C. Parsons, 1125 Nix Professional Bldg., San Antonio, Secy.

New Orleans Graduate Medical Assembly, New Orleans, March 3-6, 1958. Dr. Eugene H. Countiss, New Orleans, Pres.; Dr. Maurice E. St. Martin, 1430 Tulane Ave., New Orleans 12, Secy.

North Texas-Southern Oklahoma Fall Clinical Conference, Wichita Falls, Oct. 19, 1957. Dr. Kenneth C. Bebb, 1518 10th, Wichita Falls, Chm.

Oklahoma City Clinical Society Conference, Oklahoma City, Oct. 28-30, 1957. Dr. Herman Fagin, Oklahoma City, Pres.; Miss Alma F. O'Donnell, 503 Medical Arts Bldg., Oklahoma City 2, Executive Secy.

Postgraduate Medical Assembly of South Texas. Dr. C. Forrest Jorns, 412 Jesse H. Jones Library, Houston 25, Secy.

State Tumor Conference, Wichita Falls, April 12, 1958. Dr. Edwin C. Bebb, 500 Broad St., Wichita Falls, Director.

Board Examinations

Texas State Board of Examiners in Basic Sciences. Henry B. Hardt, Ph.D., Fort Worth, Pres.; Mrs. Pearl A. Barrera, 407 Perry-Brooks Bldg., Austin, Chief Clerk.

Texas State Board of Medical Examiners, Fort Worth, Dec. 5-7, 1957. Dr. M. H. Crabb, 1714 Medical Arts Bldg., Fort Worth, Secy.

MEDICAL MEETINGS

Southwest Regional Cancer Conference

The eleventh annual Southwest Regional Cancer Conference will be held in Fort Worth September 20-21, and special speakers will be Dr. Mark M. Ravitch, Baltimore, surgery; Dr. John D. Reeves, Boston, radiology; and Dr. Thomas M. Peery, Washington, D. C., pathology.

Friday, September 20, Dr. Peery will speak on "Hodgkin's Disease and the Lymphomas" and "Principles of Metastasis." Dr. Ravitch will discuss "Abdominal Enlargements in Infants and Children" and "Tumors of the Head, Neck, and Chest in Children." Dr. Reeves' topics will be "Diagnostic Applications of Radioactive Isotopes" and "Super Voltage X-Ray and Cobalt Bomb Therapy." In the evening, the three guests will participate in a clinical pathological conference on tumor cases; Dr. George Race, Fort Worth, will be moderator, and attending physicians will be welcome to join the discussions.

Saturday morning, Dr. Sidney Stout, Fort Worth, will moderate a panel discussion on "Hypnotism and Its Application to the Patient with Malignancy." Panelists will be Drs. Hugh Savage, Oscar Morphis, and Lloyd Richardson, Fort Worth.

Sponsoring organizations are the Tarrant County Medical Society, Tarrant County Unit of the American Cancer Society, South Central Region Committee of the College of American Pathologists, and the South Central Region Committee of the American College of Surgeons.

International Medical Assembly

The annual Interstate International Medical Assembly will be held in Chicago September 30-October 3. The purpose of the Interstate Postgraduate Medical Association, which sponsors the assembly, is to provide a varied and informative medical postgraduate teaching program at a nominal fee. Programs may be obtained by writing Box 1109, Madison 1, Wis.

Blackford Memorial Lectureship

The second Blackford Memorial Lectureship on Cancer will be held in Denison November 5 under the sponsorship of the Grayson County Medical Society. Guest speakers will be Dr. Conrad G. Collins, New Orleans; Dr. J. R. Maxfield, Dallas; C. M. Pomerat, Ph. D., Galveston; and Dr. Edgar J. Poth, Galveston.

Conference for Business, Industry

The tenth annual Health Conference for Business and Industry is to be held in Houston September 26-28. Among those addressing the registrants will be Dr. William P. Shepard, New York, chairman of the American Medical Association Council on Industrial Health; Dr. Leo Wade, New York, medical director of Esso Standard Oil Company; and Dr. John D. Horgan, Grand Prairie, supervisor of health for Chance Vought Aircraft.

Registration fee for the conference is $15 and includes three luncheons and a reception. All physicians, nurses, and management people from small and large industries are eligible to attend. The program will be comprised largely of formal addresses in general assembly, but on the second afternoon there will be panel discussions on two or three industrial medical problems. The last day will be devoted to the problems of nurses in industry.

The Texas Industrial Medical Association will hold its fall meeting in conjunction with this conference.

Oklahoma City Clinical Society

The fall clinical conference of the Oklahoma City Clinical Society will be held October 28-30. Guest speakers will be Drs. Harry E. Bacon, Philadelphia, proctology; David M. Bosworth, New York, orthopedics; Carleton B. Chapman, Dallas, medicine; Frank E. Coleman, Des Moines, pathology; Edmond L. Cooper, Detroit, ophthalmology; James L. Dennis, Oakland, Calif., pediatrics; James E. Eckenhoff, Philadelphia, anesthesiology; Isadore Lampe, Ann Arbor, radiology; Milton L. McCall, New Orleans, obstetrics; Edmund R. Novak, Baltimore, gynecology; Rees B. Rees, San Francisco, dermatology; Harry W. Southwick, Chicago, surgery; Homer Swanson, Atlanta, neurosurgery; Theodore E. Walsh, St. Louis, otolaryngology; and Austin S. Weisberger, Cleveland, medicine.

The executive secretary, Miss Alma F. O'Donnell, 503 Medical Arts Building, Oklahoma City 2, can provide complete details.

AMERICAN COLLEGE OF SURGEONS

The forty-third annual Clinical Congress of the American College of Surgeons will be held in Atlantic City October 14-18, and more than 10,000 surgeons, physicians, students, and related medical personnel from all parts of the nation and many foreign countries are expected to attend. The congress program will include postgraduate courses, discussions in general surgery and the surgical specialties, motion pictures, cine clinics, color television from Johns Hopkins Hospital in Baltimore, research reports, and scientific and technical exhibits.

ACADEMY OF PSYCHOSOMATIC MEDICINE

The fourth annual meeting of the Academy of Psychosomatic Medicine will be devoted to psychosomatic aspects of obstetrics, gynecology, endocrinology, and diseases of metabolism. It will be held October 17-19 in Chicago, and will be open to all physicians, psychologists, social workers, and nurses. The purpose of the academy is to teach psychosomatic medicine in a manner to meet the needs of the general practitioner and nonpsychiatrically oriented physicians. Complete information may be obtained from Dr. William S. Kroger, Secretary, 104 South Michigan Avenue, Chicago 3.

Seminar on Nervous and Mental Diseases

The first Seminar on Nervous and Mental Diseases will be held September 13 and 14 at the Austin State Hospital, Austin. The scientific program will be as follows:

Importance of Neurological Orientation—Dr. R. E. Chambers, Austin.

Anatomy of Cortex and Basal Ganglia—Dr. K. Earle, Galveston.

Fundamental Physiology of Brain Activity—Dr. Hebbel Hoff, Houston.

Convulsive Disorder, Including Psychomotor Epilepsy—Dr. William S. Fields, Houston.

Pathologic Anatomy of Cortex and Basal Ganglia—Dr. K. Earle, Galveston.

Biochemistry of Mental Disease—Roy B. Mefferd, Jr., Ph. D., Austin.

Neuronal Mechanisms in Psychiatric Disorders—Dr. Walter O. Klingman, Galveston.

Present Status of Observation on Nerve Tissue Cells in Vitro—C. M. Pomerat, Ph. D., Galveston.

Electron Microscopy Studies of Nerve Tissue—Dr. Donald Duncan, Galveston.

Histological Differentiation in Brain of Geriatric Patients—Dr. C. de Chenar, Austin.

The meeting is open to all physicians. There is no registration fee, but doctors who plan to attend should preregister by writing to Dr. Sam A. Hoerster, Jr., Superintendent, Austin State Hospital, Austin.

International College of Surgeons Forms Continental Federations

In order to assure a broader presentation of scientific programs by world leaders in all branches of surgery, the International College of Surgeons has formed federations on a continental basis. Each federation will develop continental meetings to supplement the biennial congresses of the college and the annual sessions of the national sections.

Dr. Curtice Rosser, Dallas, president of the United States Section, will be the regional secretary of the North American Federation, which will consist of the United States and Canada. Dr. Ross T. McIntire, Dallas, will cooperate in the activities.

INTERNATIONAL POLIOMYELITIS CONFERENCE

The rising tide of poliomyelitis throughout most of the world occupied the attention of top ranking medical scientists from more than 50 nations at the opening session of the Fourth International Poliomyelitis Conference in Geneva early in July.

While the widespread use of Salk vaccine in the United States in 1956 was accompanied by a 50 per cent drop in the incidence of the disease as compared with 1955, there has been an increase in epidemics throughout the world.

Southwestern Medical Association

Guest speakers for the forthcoming Southwestern Medical Association meeting will be Dr. Oscar Creech, Jr., New Orleans, surgery; Dr. William Parsons, Charlottesville, medicine; Dr. J. S. DeTar, Milan, Mich., general practice; Dr. E. E. Muirhead, Dallas, pathology; Dr. Frederick C. Bost, San Francisco, orthopedic surgery; Dr. Edward A. Banner, Rochester, Minn., obstetrics and gynecology; Dr. Phillip Thygeson, San Francisco, ophthalmology; Dr. Robert A. Hingson, Cleveland, anesthesiology; and Dr. Howard P. House, Los Angeles, otolaryngology.

The meeting will be held in El Paso October 9-11.

Congress on Internal Medicine

The International Society of Internal Medicine will hold its fifth congress in Philadelphia April 24-26, 1958. This will be the first meeting to be held outside of Europe.

At this congress, medical achievements of world wide significance will be analyzed, and social and cultural activities to promote friendship and mutual understanding among physicians of the world have been planned.

Immediately following the congress (April 28-May 2) the American College of Physicians will meet in Atlantic City, and members of the congress may attend all scientific programs and exhibits of this meeting.

TRI-STATE MEDICAL SOCIETY

The Tri-State Medical Society will meet in Shreveport September 11 and 12, and the program will include both lectures and live clinics.

Special speakers will be Drs. Joseph H. Rosenzweig, Hot Springs, Ark., pediatrics; Robert Schneider, Oklahoma City, medicine; Carrol B. Larson, Iowa City, orthopedics; O. M. Marchman, Jr., Dallas, ophthalmology and otolaryngology; Joseph B. Sheffery, Washington, D. C., obstetrics and gynecology; O. H. Beahrs, Rochester, Minn., surgery; Edgar Burns, New Orleans, urology; and W. R. Mathews, Shreveport, pathology.

MEDICOLEGAL NOTES

Bexar County Questions Free Medical Care for Civil Service Employees

Early in 1956, members of the Bexar County Medical Society began to hear from their patients of a new program at Kelly Air Force Base, whereby Civil Service employees of that base were being offered physical examinations, electrocardiograms, chest x-rays, routine laboratory studies, and "cancer smears" at taxpayers' expense. In the Kelly AFB newspaper in April of that year, the employees read that they were being given comprehensive examinations that would cost them at least $75 in a doctor's office.

Following this news, the executive committee of the medical society passed a resolution empowering the president to appoint a committee to investigate the inroads on the private practice of medicine in Bexar County. This committee consisted of the following members: Dr. Walter Walthall, chairman, Drs. John Bohmfalk, J. B. Copeland, R. F. Gossett, Max E. Johnson, R. C. Norman, John M. Smith, Jr., and E. M. Sykes, Jr.

Investigations covered the following possible areas of encroachment:

1. City, county, and state health departments.
2. School health departments and vaccine programs.
3. Government examination and/or treatment of Civil Service employees.

4. Unions.
5. Veterans Administration.
6. Bexar County hospital district.

As a result of one of these investigations, the House of Delegates of the Texas Medical Association considered the problem, and in June, 1956, the Texas delegation introduced a resolution in the American Medical Association House of Delegates, which read as follows:

Resolution on Medical Care for Civil Service Employees.—"Civilian employees (under Civil Service) of various federal military installations are required to undergo yearly physical examinations (including eye examination, chest x-ray, EKG, routine laboratory procedures) by government employees at taxpayers' expense. This represents another intrusion into the private practice of medicine and conceivably justifies some usage of physicians drafted into the military service."

This resolution was referred by the AMA House to the Council on Medical Service. The primary intent of the resolution was to point out another intrusion (the Kelly Field program) on the private practice of medicine and to do all possible to stop it. The Council on Medical Service at first was of the opinion that the Texas delegation was more concerned about the use of drafted physicians in these examinations. At the Seattle interim session, the House, when informed of the main purpose of the resolution, instructed the Council on Medical Service to do the following:

1. Review the legislative authority for the employee health program in San Antonio;
2. Obtain and review basic material from the Texas Medical Association on the viewpoints and attitudes of the local profession; and
3. Carry out an on-the-spot survey in San Antonio.

By the time the previously mentioned procedures were carried out, the Bexar County's investigating committee had a complete picture of what was being conducted at Kelly Field. Half of the committee met with a Task Force group of the AMA in Dallas in April, 1957; the other half met with Task Force members in San Antonio and invited the Air Force administrative and medical officers to meet with them. The Task Force conducted an on-the-spot survey, met with all concerned at one meeting, spent much time at Kelly AFB, and met with the Air Force representatives without the Bexar County group present, and then reversed this procedure. All aspects of this program were studied by the Task Force group, made up of Dr. Donald C. Gonzett, Dubuque, Iowa, of the Council on Medical Service; George Cooley, acting secretary of the Council on Medical Service; Frank Barton, secretary of the Council on National Defense; Dr. B. Dixon Holland, secretary of the Council on Industrial Health; and Miss Alma Jensen, recorder for the Council on Medical Service.

Major Points Before AMA.—The Task Force's report was presented by the Council on Medical Service, and it was adopted by the Reference Committee on Medical Service and by the House of Delegates at the AMA session in New York in June.* The following major points were made:

1. With 23,659 civilian employees at Kelly Field and with many hazardous operations, the base has an extensive occupational health program. (The county medical society does not object to a program for routine occupational services.) Approximately 6 to 10 minutes are allowed per person, including time necessary for the doctor to review the history and perform the examination. All employees examined are notified of negative or positive findings of abnormalities, as are the employees' personal physicians. It is agreed by all parties concerned that this is not a "complete physical examination" but rather is a biannual screening examination designed eventually to include all civilian employees.

2. The medical society is opposed to this program because (a) such an examination, as conducted, is poor medicine, (b) the follow-up letter to the patient indicating no abnormal findings gives him a sense of false security, (c) the follow-up letters to the patient and his physician indicating abnormal findings may cause undue alarm, and (d) such examinations are for personal health not related to work and could best be done by the employee's own private physician. The Air Force insists that this is an occupational health program within Public Law 658 and the Public Health Service suggested program for civilian employees.

3. The medical society also believes that even though such regular screening examinations are carried out in some industries, they should not be provided for Civil Service workers at taxpayers' expense. This of course raises the question as to whether Civil Service employees of government should, for occupational health purposes, be considered the same as are employees of private industry.

4. The medical society looks upon the Kelly Field program as a pilot project to be extended to other Air Force bases and as a further encroachment of government into medical practice.

Recommendations and Conclusions.—The Council on Medical Service recommended first that where screening examinations (sometimes called multiple screening) are concerned primarily with personal health and not occupational health, and when they are deemed necessary or helpful to employees, they are to be considered as within the province of family physicians; and finally that any examinations, screening or otherwise, not concerned with or for the purposes of work assignment or related to employment conditions are to be considered personal health examinations and are the proper function of the employee's private physician and, therefore, when undertaken by industry or government, are an encroachment on the private practice of medicine. The Council's recommendation that the House consider the question as to whether Civil Service employees of government should be considered the same as employees of private industry for occupational health purposes, was referred for further study.

The Kelly Field Program of the examination of Civil Service employees at taxpayers' expense was, as the Bexar County investigating committee pointed out, an outgrowth of a series of health lectures to older employees. A pilot group of older people had been given examinations for several years, when the post surgeon decided to lower the age group and to ask all employees on the post to undergo these examinations on a voluntary basis. The program was called "The Geriatric Medical Program."

It was discovered early in the program that it was allowed under the provisions of Public Law 658, passed by Congress with the AMA's backing, in 1946. Under this law, it is possible to do preemployment and "other" examinations. The Bexar County committee believes the loose wording of this law should be corrected.

Under the AMA's proposed "Scope, Objectives, and Functions of Occupational Health Programs" was a statement which would have allowed industrial physicians "to evaluate the health status of the individuals employed." It stated that health measures offered industrial workers will be offered Civil Service employees since there is competition between the government and industry for certain types of employees. The Bexar County delegates were able to persuade the Reference Committee on Industrial Medicine to delete this last "scope and objective." Thus the AMA's policy as adopted this year would prevent another occurrence similar to the Kelly Field program.

Effective July 15 the examination of Civil Service employees at Kelly Air Force Base under the Geriatric Medical Program was discontinued. Also, it was ruled that Civil Service employees injured on the job will be transported to private doctors and facilities unless such a move would endanger their lives.

**The complete report appears in the July 6, 1957, J.A.M.A. pp. 1120-1121, 1123-1124.*

Negligent Acts of Employees

A physician's liability for the negligent acts of a partner or an associate was discussed in an article last month. This article is on a closely related subject—the liability of a physician for the negligence of his assistants, apprentices, agents, or servants, whether they be professional men, nurses, or laymen.

There is no doubt that today, in Texas, a physician can be liable for the negligent acts of any of his assistants, apprentices, agents, or servants. This liability rests upon the doctrine of respondeat superior—let the master answer. Under this doctrine, the master can be held liable for the negligent acts of his employees, and the courts have held that such doctrine would be applied to bring about the liability of a physician for any negligent acts of his employees which resulted in injury to a patient.

Although there is a somewhat surprising lack of cases in Texas applying this principle, there is no doubt that the courts would apply it to bring about liability upon the part of the physician.

Possibly the first case raising this issue was the case of Wilkins v. Ferrell.* Although this case involved a dentist rather than a physician, it is likely the courts would follow this reasoning as applied to a physician. The court, in its opinion, made the following statement:

> . . . Under the issues as made by the pleadings and the evidence, the jury should have been told that the evidence showed without dispute that some person other than the defendant extracted plaintiff's tooth; and that, before the defendant could be held liable therefor, it must appear from the evidence that such other person was the employee of defendant, over whose actions in the premises defendant had dominion and control; or that defendant, being called upon to do the work, directed it to be done by such other person, under circumstances which would justify an ordinarily prudent and reasonable person in believing that such other person was aiding defendant in his professional work. . . .

As can be seen by this portion of the opinion, the court held that if negligence was established, the dentist could have been held liable if the person who committed the act of negligence was the employee of the dentist and was under his direct control and supervision.

Applying this reasoning to a case in which a physician employs nurses and assistants in his offices, there would be no question but that such nurse or assistant would be considered an employee in the eyes of the law. Especially with regard to nurses and assistants in a physician's office, it hardly could be argued that such individuals are not under the direct control and supervision of the physician.

Another case bearing upon this subject is Lee v. Moore.† (This case was reversed by the Supreme Court in 211 S.W. 214 but upon other grounds.) Without going into the facts of this case, which are long and complicated, it probably will suffice if one statement of the court's opinion is quoted. It leaves little doubt as to a physician's liability for the acts of his employees:

> . . . But a physician is responsible for an injury done to a patient through the want of proper skill and care in his apprentice or assistant. . . .

Consequently, a physician can be held liable for the negligent acts of his employees which result in injuries to his patients. Probably the reason there is so little case law upon this subject is that there is no doubt as to this liability, and consequently, it has not been raised in subsequent cases. The only point necessary to substantiate liability is the establishment and proof of negligence on the part of the employee.

—PHILIP R. OVERTON, L.L.B.

*30 S.W. 450, 1895.
†162 S.W. 437.

Texas to Effect Disability Program

A state Law conforming to the requirements of the Federal Social Security Act for participation in the state-federal program of aid to the totally and permanently disabled will become effective in Texas September 1. Applications have been accepted since July 15. This law is H. B. 78, Aid to the Permanently and Totally Disabled. H. B. 78 is enabling legislation based upon S. J. R. 7, which was adopted as a constitutional amendment in November, 1956, by the people of Texas in a vote of 159,588 to 17,860 or approximately 9 to 1.

In a meeting in the Texas Medical Association's headquarters building July 7, John E. Winters, commissioner; Weldon Watson, executive assistant; and Dr. J. T. Phillips, representatives of the Texas State Department of Public Welfare, which will administer the program with Dr. Phillips, Austin, as medical director, presented the procedures for implementing this law in Texas to the Association's Council on Medical Economics for review. The council found them to be acceptable and expressed appreciation to the Department of Public Welfare for seeking counsel from the Association.

The new law provides financial assistance to United States citizens between the ages of 18 and 65 who are not eligible for other forms of government aid such as old age pension, care in a public institution (except as a patient in a medical institution), aid to the blind, or aid to dependent children. The term "permanently and totally disabled" means that the person has physical or mental impairment, disease, or loss which is irreversible or progressive, and not amenable to treatment. Also, the person must be adjudged unfit for vocational rehabilitation. Disability must be established on the basis of a medical report by a physician, and this report must be reviewed and approved by a physician employed by the State Department of Public Welfare. A fee for necessary medical examination will be paid by the department.

The Department of Public Welfare is authorized to provide such medical, social, and related services as are found necessary for proper administration of the law and for the most effective use of other resources for rehabilitation and restoration to health and independence.

The amount of assistance given will be determined through the district or field workers in the area in which the needy person resides. In determining need, all resources and available income to the person will be taken into consideration, and the amount granted will provide him with reasonable subsistance.

International MD Pool

A physicians' pool, organized on a world-wide scale on a completely neutral basis for use in case of another war, was the subject of a recent address delivered before the French Academy of Medicine by the Honorable Francois Tanguy-Prigent, Minister of Veterans Affairs. The project calls for a pact of mutual medical assistance to be furnished by neutral countries to belligerents; aid would consist of hospitalization of the wounded on neutral territory and shipment of medical supplies as well as personnel.

Medical Schools Have Growing Pains

Texas is a growing land, increasing in industry, education, culture, and population. With its productive growth come greater needs, and one of these needs is more doctors. True, medical education facilities in Texas have been expanded in recent years, but the three medical schools of this state have space to admit only 346 students each year. Of these, some will not graduate, some will move out of the state, and some will not be active practitioners.

DOCTOR-POPULATION RATIOS

In 1955, there was one physician for every 1,321 persons in Texas. The 1940 ratio was 1:1,090; thus the number of active practitioners has not kept up with the growing population. The American Medical Association advises one medical school for each 2,500,000 people in order to meet minimum standards. With the Texas population skyrocketing toward an expected 11,000,000 in 1970, the three schools now in operation will be still less adequate for the state's needs than they are now.

Dr. Melvin A. Casberg, vice-president for medical affairs of the University of Texas, and Alfred G. Dale, research associate in the University's Bureau of Business Research, Austin, have issued a study of physician population in Texas. The primary purpose is to analyze the cumulative effects of different levels of graduation from Texas medical schools after 1960. In the projections, variables such as the number of physicians licensed by reciprocity and by examination to graduates of out-of-state and foreign schools, mortality, out migration, and cancellations are considered.

TABLE 1.—*Anticipated Physician-Population Picture in Texas If Current Rate of Graduation of Doctors (320 per year) Remains Constant.**

	1940	1955	1960	1970	1975
Population	6,415,000	8,563,000	9,332,000	11,090,000	12,087,000
M. D.'s in active private practice	5,885	6,480	7,604	9,931	11,049
M. D. gain per year	335†	596†	348‡	333‡	319‡
M. D. - population ratio	1:1,090	1:1,321§	1:1,227	1:1,117	1:1,094

*Figures in this chart are based on the assumption that there will be a substantial increase in the number of foreign graduate in-migration.

†Number of new licenses issued in Texas.

‡Net gain after deaths, out-migration, issuance of Texas and out-of-state licenses, etc.

§A Texas Medical Association survey shows this figure to be about 1,100.

(Figures on physicians taken from Dale, A. G., and Casberg, M. A.: Illustrative Model Projection of Physician Population; A Preliminary Study in the State of Texas, Austin, University of Texas, 1957.)

Table 1 is compiled from this report, using figures based on the assumption that Texas medical school graduations will remain stable at the current rate of 320 annually, and that there will be substantial increase of foreign graduate in-migration.

Of course, many persons in Texas receive medical care from practitioners other than M. D.'s. Since this article deals with schools conferring doctor of medicine degrees, other types of practitioners are not included in the physician-population figures.

PROBLEM IS NOT NEW

The Texas Medical Association long has been interested in medical education; two of the purposes of the Association, as stated in the Constitution, are to extend medical knowledge and advance medical science and to elevate the standard of medical education. Dr. R. H. Harrison, in his 1878 presidential address, said, "Those who love the profession for its own sake and who venerate it for its antiquity must insist on premedical preparation and medical facilities commensurate with the lofty aims of the profession. Then the student can take his degree with credit to himself, honor to the profession, and benefit to humanity."*

He would have been pleased had he known that in 1957 Texas would have three top-ranking medical schools—University of Texas Medical Branch, Galveston; University of Texas Southwestern Medical School, Dallas; and Baylor University College of Medicine, Houston. Only four states have more medical schools than Texas, with one other having the same number of schools.

The first such institution in Texas was founded by Dr. Greensville Dowell in Galveston in 1866, and in 1876, as a result of the interest and influence of Dr. Ashbel Smith and John Sealy, the Texas Legislature provided that a medical branch of the University of Texas be established in Galveston. Mr. Sealy gave the hospital, which enabled the Medical Branch to open in 1890. Since then, the school has grown to accommodate a total of almost 900 students of medicine, nursing, technology, and other related sciences. About 165 freshman medical students are admitted each year.

At the turn of the century, there were several medical schools in Dallas, but the strongest of these was the Medical Department of the University of Dallas, headed by Drs. E. H. Cary, C. M. Rosser, and S. E. Milliken. This school became affiliated with Baylor University in 1903, and was moved to Houston in 1943. About 84 students are admitted each year.

When Baylor University College of Medicine moved from Dallas, a group of that city's citizens established the Southwestern Medical College of the Southwestern Medical Foundation in Dallas. During its first year of operation, 1944, it was fully approved by the Council on Medical Education and Hospitals of the American Medical Association. This was possible because full use was made of facilities and personnel remaining in Dallas when the Baylor school moved. It became apparent in 1949 that additional facilities must be made available for the training of doctors, and the Texas Legislature considered providing for a fourth medical school, calling on the Texas Medical Association for advice. The Southwestern Medical Foundation offered its equipment, library, and certain funds of its medical school to the state provided that the University of Texas would locate its new branch in Dallas. This offer was approved by the Texas Medical Association, and was accepted by the Board of Regents.

Incorporated in the bill authorizing the University of Texas to acquire Southwestern Medical College was a provision that the school should admit 100 students each year. This

*Nixon, P. I.: A History of the Texas Medical Association, 1853-1953, Austin, University of Texas Press, 1953, p. 76.

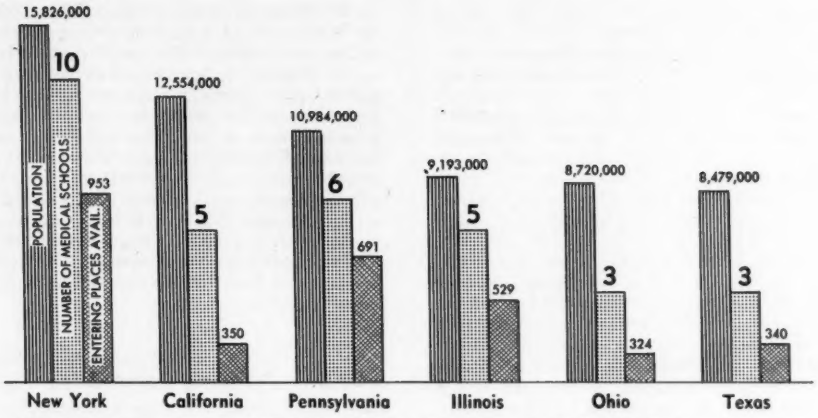


Fig. 1. Present population (left bar), number of medical schools (middle bar), and entering places available in medical schools (right bar) are contrasted for the five states with the largest populations. (Modified from charts prepared by the San Antonio Medical Foundation.)

was an increase of 36 over the school's previous annual admissions, and was accomplished by extensive rearrangement of the laboratory facilities and in some areas by a system of sections in which double duty was exacted of both physical plant and personnel.

In his presidential address at the 1957 annual session of the Texas Medical Association in Dallas, Dr. Milford O. Rouse questioned whether the state is placing an undue burden also on the faculty of the University of Texas Medical Branch by requesting that 165 students (far beyond the average optimum) be admitted each year in the freshman class. At the same meeting, the Council on Medical Education and Hospitals introduced a resolution, which was adopted by the House of Delegates, to support legislation providing for the establishment of a third medical branch of the University of Texas, and indicating that San Antonio would be the favored site for such a school. A similar recommendation had been approved several months earlier by the Association's Executive Council.

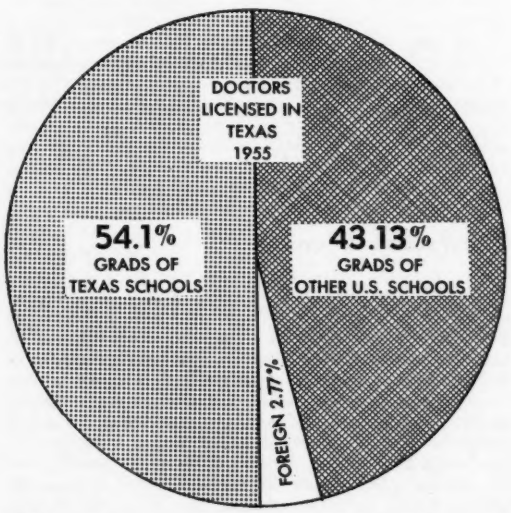


Fig. 2. The training sources of doctors licensed in Texas in 1955, based on figures from the Texas State Board of Medical Examiners. (Modified from charts prepared by the San Antonio Medical Foundation.)

SAN ANTONIO'S ADVANTAGES

Information being distributed by the San Antonio Medical Foundation shows that that city has in its favor complete medical research facilities, a wealth of potential faculty from every field of medicine, abundant clinical material, and a community already interested in supporting medical institutions.

The vast Brooke Army Medical Center, comprising Brooke Army Hospital and the Army Medical Service School; Lackland Air Force Base Hospital; the School of Aviation Medicine; the Southwest Foundation for Research and Education; and Bexar County Medical Society offer research and library facilities in abundance. With more than 500 practicing civilian physicians, any medical or surgical problem can be studied and treated in San Antonio, and many of the nation's top men of medicine are on the staffs of the military medical establishments. The large percentage of wage earning population and a co-mingling of several nationality groups offer much clinical material in addition to the patients at the San Antonio State Tuberculosis Hospital and the San Antonio State Hospital for patients with mental disorders.

Brooke Army Hospital is approved for residency training in dermatology, syphilology, internal medicine, neurology, ophthalmology and otolaryngology, orthopedic surgery, pediatrics, psychiatry, radiology, and surgery. A fine group of city and city-county hospitals is available for educational purposes.

As yet, the Texas Legislature has not passed a specific bill authorizing the third medical branch of the University, despite the introduction of such a bill before the fifty-fifth Legislature. The Commission on Higher Education first must make a thorough study of the situation, and it will have a great deal of influence in settling details and even in determining whether or not another medical school is desirable and practicable.

CURRICULUM REVISIONS CONSIDERED

One factor that must influence planning for medical education is that as science speeds through the barriers of the unknown, it becomes necessary for doctors to learn more and more in order to keep up to date. This creates a disturbing problem of curriculum. If the present line of curriculum extension should continue, it could reach the astonishing length of 18 years of training by 1970; so said Dr. Oliver

Cope, associate professor of surgery at Harvard Medical School, when he spoke at the recent Congress on Medical Education and Licensure held in Chicago. He suggested making better use of group teaching in lectures, seminars, and clinics, and combining the materials and subject matter of various departments. For instance, physiology, pharmacology, and biochemistry all teach aspects of the same subject, and could be joined as a division of physiologic chemistry.

In the national spotlight now, and potentially with a possible influence on Texas medical education, is the administration's controversial federal medical school aid bill, which would provide 225 million dollars for research and classrooms over a five year period. A recent report showed that all but a few of the nation's 83 medical schools would be interested in receiving federal aid. The interval between the decision to establish a new school and the graduation of its first class is six to eight years. At the present time, 25 per cent of all internships and residencies are filled by foreign doctors. This is an increase during the past five years of 280 per cent; in the same period, the number of United States citizens in these positions has decreased 1 per cent. In the past academic year, tuition covered only 18.2 per cent of the total operating expenses of the medical schools. Moreover, 13 states and the District of Columbia, with a total civilian population of 19 million, did not contribute any public funds, although $52,000,000 was appropriated by other states in 1956-1957 for medical education.*

These, then, are a few of the outstanding factors at work in Texas as increased facilities for medical education are considered.

Allergic Disease Scholarships

The American Foundation for Allergic Diseases has announced awards of $500 quarterly or summer scholarships to 20 medical students from approved medical schools throughout the United States and Canada to encourage young students to broaden their knowledge in the field of the allergic diseases by research and clinical training. These awards were made possible by a grant to the foundation from the Gustavus and Louise Pfeiffer Research Foundation.

Two Texas students received grants; they are Wayne M. Meyers, Ph.D., Baylor University College of Medicine, Houston, and Will Light Nash, University of Texas Southwestern Medical School, Dallas.

Baylor University College of Medicine

Dr. John C. Haley, chairman of the Department of Anatomy at Baylor University College of Medicine, Houston, was named distinguished professor emeritus of anatomy at a luncheon in his honor June 28. He will continue in his capacities as secretary-treasurer of both the Baylor Medical Alumni Association and Baylor Medical Foundation.

Dr. F. Keith Bradford, clinical associate professor of neurosurgery, has assumed the duties of chairman of the Division of Neurosurgery. Other faculty promotions include Dr. Ellard M. Yow to professor of medicine; Dr. Phil Davis to assistant professor of medicine; Dr. John R. Thomas to clinical associate professor of pathology; Dr. Robert C. Overton to clinical assistant professor of surgery; and Dr. Jane Telford to assistant professor of anesthesiology.

Studies of problems of paralyzed poliomyelitis patients will be conducted at Baylor University College of Medicine by Dr. George W. Clayton. His work is concerned primarily with the causes of a syndrome which involves both hypertension and an abnormally high level of calcium in the urine.

Dr. William A. Spencer, Department of Rehabilitation, and Dr. Paul Harrington, Department of Orthopedic Surgery, attended the Fourth International Poliomyelitis Congress in Geneva in July. They also entered an exhibit there. Dr. Leon Dmochowski, Department of Microbiology, presented a paper at the Fourth International Gerontology Congress in Merano and Venice in July. Other European travelers in July were Drs. Peter Kellaway, Department of Physiology; William S. Fields, Department of Neurology, and E. C. Alvord, Department of Neurology and Pathology, who attended the First International Congress of Neurological Sciences in Brussels.

Infantile Paralysis Fellowships

Postdoctoral fellowships in research, academic medicine, or the clinical fields of psychiatry, rehabilitation, orthopedics, management of poliomyelitis, and preventive medicine are being offered by the National Foundation for Infantile Paralysis. Deadlines for applications are September 1 and December 1.

Financial support varies according to previous education, experience, marital status, and number of dependents. For a full academic program, tuition and fees are allowed; for other programs, a sum not to exceed $1,250 per year is provided. United States citizenship is required, but those who have filed petitions for naturalization will be considered. Partial fellowships are available for qualified veterans to supplement G. I. educational benefits. Applications must be received by September 1 for November consideration, and by December 1 for consideration in February.

SOUTHWESTERN MEDICAL SCHOOL

The Smith, Kline, and French Foundation, through the American Psychiatric Association, has awarded a grant to the University of Texas Southwestern Medical School, Dallas, to permit two students to work during the summer in the inpatient department of the 70 bed Woodlawn Hospital, which is the teaching ward of the Department of Psychiatry. The students not only attend teaching conferences, but receive three hours a week of individual supervision by a staff psychiatrist. Dr. Robert L. Stubblefield, professor of psychiatry, supervises the program.

Postgraduate Courses

Air Pollution, December 2-13, New York.—Basic toxicology of the principal air pollutants, micrometeorological factors, effects of air pollution on agriculture and commerce, and methods for sampling and analyzing toxic components will be reviewed. Sources of air pollution, methods of control, and the pattern of governmental regulations will be studied. This course is designed for engineers, industrial hygienists, and physicians concerned with the problem of community air pollution; tuition is $90. For full details write the Associate Dean, New York University Post Graduate Medical School, 550 First Avenue, New York 16.

Medical Aspects of Workmen's Compensation, October 21-25, New York.—New aspects of health problems intensified by modern living will be presented at this course. The Associate Dean, New York University Post Graduate Medical

*Most Medical Schools Want U. S. Aid, J.A.M.A. 163:25 (March 30) 1957.

School, 550 First Avenue, New York 16, can supply information.

Gynecology Seminar, October 27-29, Houston.—The University of Texas Postgraduate School of Medicine will present a three day seminar, Current Trends in Gynecology; latest developments in this field will be stressed, and particular attention will be given to patient management. A wide range of subjects will be presented in lectures, panel discussions, and surgical demonstrations in the operating rooms of the University of Texas M. D. Anderson Hospital and Tumor Institute. One of the guest lecturers will be Dr. Hans L. Kottmeier, Stockholm, Sweden. Queries concerning the course may be directed to the Dean, 410 Jesse Jones Library Building, Houston 25.

Medical Advisory Committee Named

The newly named medical advisory committee to the Board of Trustees of the Southwestern Medical Foundation consists of Drs. George M. Jones, chairman; Guy T. Denton, Jr.; and T. Haynes Harvill, all of Dallas.

OF GENERAL INTEREST

PERSONALS

Dr. Howard O. Smith, Marlin, President-Elect of the Texas Medical Association, has received the Andy Anderson Humanitarian Award which is given annually at the state convention of the Disabled American Veterans. He is the first person to receive this award in the form of a trophy; it is a memorial to the late Andy Anderson, Houston newspaper man, who displayed outstanding interest in disabled veterans.

Dr. Walter Krohn, Dallas, presented a paper at the third International Congress of Clinical Pathologists in Brussels in July. Sol Haberman, Ph.D., Dallas, was co-author of the paper.

Dr. Charles M. Pearce, Dallas, was honored recently by the Dallas Federal Business Association for his unusual contributions in promoting and guiding the medical program of the Dallas Veterans Administration regional office during the past several years.

Dr. Alfred H. Hill, San Antonio, has been elected president of the board of directors of the Community Guidance Center of Bexar County, an organization for the treatment of emotionally disturbed children. Physicians who are new board members are *Dr. Edith M. Bonnet,* and *Dr. Virginia S. Stovall.*

Dr. C. Scott, San Antonio, is a new fellow of the American Academy of Pediatrics.

Dr. George E. Clark, Jr., Austin, will discuss "Coronary Vasodilators and Cardiotonic Drugs" in a panel during a refresher course for Texas pharmacists to be conducted November 15-16 in Austin at the University of Texas College of Pharmacy.

Texas physicians who were certified in May by the American Board of Obstetrics and Gynecology are *Drs. Dean D. Curtis, Mary L. Magee, Matthew H. Talty,* and *Nathan H. Topek,* all of Houston; *Grover C. Nabors, Graham L. Pierce, Jr.,* and *Jack A. Pritchard,* Dallas; *Tom C. Burditt,* Abilene; *Chester R. Johnson,* Midland; *Warren T. Kable,* Wichita Falls; *Joanne Kenner,* Mineral Wells; *R. W. Lundgren,* San Antonio; *Samuel J. Merrill,* Brownsville; and *Jack L. Turner,* Fort Worth.

Dr. W. W. Bondurant, Jr., is the new president of the San Antonio Heart Association.

Dr. James Y. Bradfield, Dallas, is a new vice-president of the Flying Physicians Association.

Dr. Elihu I. Klein, Galveston, was married June 9 in Fort Worth to Miss Frances Fox.

Dr. Elliott Blumberg, now stationed in El Paso, will be married September 22 in Borger to Miss Louise Elizabeth Voet.

Miss Isabelle Lucie Burow, daughter of *Dr. and Mrs. F. Paul Burow,* Killeen, was married August 17 to Leonard Richard Wrentz, Jr. The couple will live in Houston.

A daughter, Julia, was born to *Dr. and Mrs. James B. Walker,* Houston, June 12.

Dr. and Mrs. Riley N. Riddle, Alice, are new parents of a boy born June 11. A girl was born June 2 to *Dr. and Mrs. Lyndon Moses,* El Paso.

Glover Hargis, grandson of *Dr. W. H. Hargis,* San Antonio, was drowned July 4 at a boys' camp in Colorado. His father was the late Dr. Huard Hargis of San Antonio. He is survived by his mother, three sisters, and a brother.

Asian Influenza in Texas

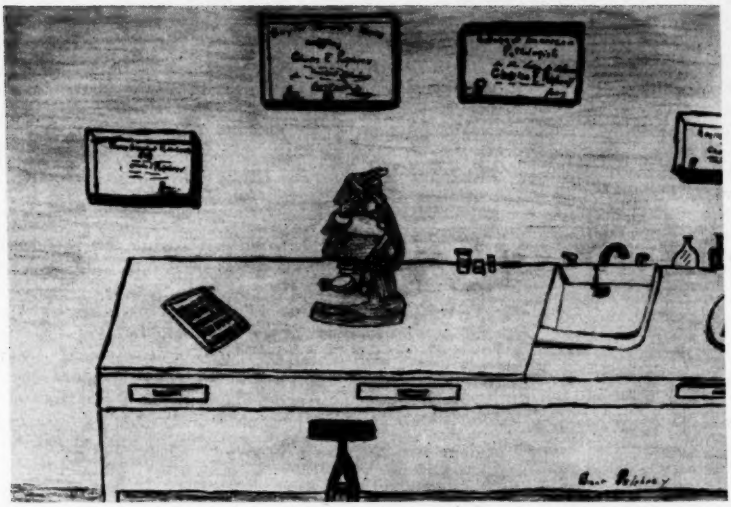
Dr. Henry A. Holle, Austin, Commissioner of Health, has issued the following statement regarding possible epidemic of Asian influenza in Texas:

> Three isolates of the Asian strain of influenza have been made by the Texas State Department of Health laboratories as of August 1. Approximately 40 additional laboratory specimens presently are under study.
>
> In addition to influenza-like illnesses among Boy Scouts returning from the Valley Forge Jamboree in July, sporadic cases now are being reported from several areas of the state. Based on available evidence, a major statewide outbreak could well occur in the early fall.
>
> Both monovalent and polyvalent vaccine production is being rushed by manufacturers and probably will be available in September. The State Health Department will not be able to offer vaccine for general distribution and will be limited to supplying vaccine to its own personnel.
>
> Cases experienced thus far have been relatively mild; however, there is no assurance that the virus will not become increasingly virulent with repeated passage, bringing higher mortality rates.
>
> Military experience indicates that influenza vaccine is effective; therefore, physicians are urged to recommend vaccination to their patients. Prudence suggests that physicians themselves and allied professionals be immunized as soon as possible in preparation for whatever may be required of them in event of an influenza emergency.

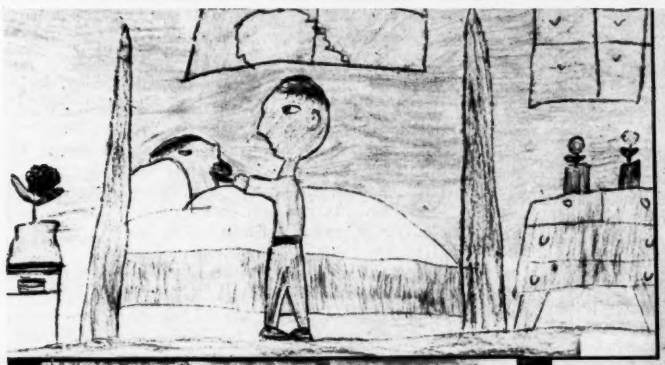
At the national level, the American Medical Association has appointed a committee to promote nation wide preparedness programs in case epidemics break out. The committee plans to inform all physicians, through state and county medical societies, how to deal with any Asiatic influenza epidemic; urge state and county medical societies to prepare and develop stand-by programs and plans to cope with any epidemic should it occur; formulate plans at the national level to utilize all medical personnel, regardless of type of practice, in time of an influenza emergency, and coordinate state and local programs with public health agencies and health departments.

—

Approximately 28,000 more professional nurses are at work today in this country than there were two years ago. An additional 70,000 are needed to reach the reasonable goal of 300 professional nurses per 100,000 population.—American Nurses' Association.



Charles Pelphrey, 10, Austin, won fourth prize in the children's art contest with his drawing of a laboratory (left). Fifth place winners (below) were pictures by Dan Hardt, 7, Bastrop (upper left); Chris Fair, 5, Greenville (upper right); Paul Legett, 10, Austin (lower left); and Cheri Whitehouse, 5, Cleburne (lower right).



TEXAS CHILDREN RANK AS ARTISTS

Five Texas children were among 96 from all parts of the nation who won prizes in an art contest for doctors' children sponsored by Nepera Laboratories. There were 2,766 entries, and the winning drawings were displayed at the annual convention of the American Medical Association in New York early in June. They then were placed on exhibition throughout July in the Cleveland Health Museum.

The Texans, their ages, prizes, and parents, are:

Charles Pelphrey, 10, fourth prize in the 8 to 11 group, son of Dr. and Mrs. Charles F. Pelphrey, Austin.

Paul Legett, 10, fifth prize in the 8 to 11 age group, son of Dr. and Mrs. Martin P. Legett, Austin.

Dan Hardt, 7, fifth prize in the 6 to 7 age group, son of Dr. and Mrs. S. M. Hardt, Bastrop.

Chris Fair, 5, fifth prize in the 5 and under age group, daughter of Dr. and Mrs. R. H. Fair, Greenville.

Cheri Whitehouse, 5, fifth prize in the 5 and under age group, daughter of Dr. and Mrs. W. R. Whitehouse, Cleburne.

Prizes in each age group were: first, $500 savings bond; second, $100 savings bond; third, $50 savings bond; four fourth prizes, $25 savings bonds; and 25 fifth prizes of art supply kits. Each entrant also received a certificate of merit with a letter of commendation from the president of Nepera Laboratories, Dr. Leonard A. Scheele, former surgeon general of the United States Public Health Service.

BENEFIT PAYMENTS RISE

More than $3 billion of the nation's health care bill will be paid in 1957 through voluntary health insurance programs, according to a report by the Health Insurance Council.

The council estimates that in Texas as of July 1, 1957, more than 5,250,000 persons were protected by some form of health insurance. Some 4,876,000 persons were protected against the cost of hospital expenses through voluntary health insurance programs; 4,749,000 were covered for surgical expenses; and 2,907,000 had policies covering regular medical expenses.

In the past eight years, the proportion of the nation's total medical expenses met by voluntary health insurance has increased three times as fast as the proportion of Americans holding such insurance, according to the Health Information Foundation.

Hospital Room Rent Up

Room rates in United States general hospitals rose about 6 per cent in the past year, according to an annual survey just completed by the American Hospital Association. Lowest average rates were found in the West South Central region, including Arkansas, Louisiana, Oklahoma, and Texas: $11.53 for single room, $8.96 for two-bed room, $7.49 for multibed rooms.

Death Rates at All-Time Low

All-time low death rates were recorded in 1956 for tuberculosis, maternity, the childhood diseases, suicide, and homicide, statisticians of the Metropolitan Life Insurance Company report on the basis of experience among the company's industrial policyholders.

In addition, the poliomyelitis death rate among these insured dropped to half that for 1955—or to only .3 per 100,000. This reduction paralleled the drop in the number of cases of the disease reported in the general population of the United States.

Mortality from all causes among industrial policyholders continued at the record low level of the two preceding years, death rate for all ages combined being 6.2 per 1,000 in each of the last three years, compared with 6.5 in each of the three years, 1951-1953.

The cardiovascular-renal diseases accounted for a little more than half the total deaths among industrial policyholders in 1956. Second were cancer and allied conditions, responsible for slightly more than one-fifth of the deaths, while accidents ranked third.

Death rate from the principal communicable diseases of childhood—measles, scarlet fever, whooping cough, and diphtheria—reached a new low of .2 per 100,000 policyholders; pregnancy and childbirth mortality, despite the record birthrate, was down to .9 per 100,000; suicide and homicide rates were low at 5.6 and 2.4 per 100,000 respectively.

Accident fatalities increased from 35.1 to 35.6 between 1955 and 1956, the survey shows.

New Technique for Curare Use

Development of a technique which enables doctors to make more effective use of curare has won a national award for Mrs. Bernice Elert, medical technologist at St. Paul, Minn. Her new method enables doctors to determine how long curare remains effective in the patient's body. This involves extraction of the drug from blood plasma by means of an organic liquid in an alkaline medium. The liquid is mixed with a dilute acid and the curare transfers to it. It can then be measured in a spectrophotometer with ultraviolet light.

Mrs. Elert received her award at the recent convention of the American Society of Medical Technologists.

Symposium on Parkinson's Disease

A group from St. Barnabas Hospital describes and tells the effects of anterior choroidal artery occlusion and chemopallidectomy in the treatment of Parkinson's Disease. These procedures are evaluated and the careful selection of candidates for these procedures is stressed.—Cooper, Irving S., J. Am. Geriatric Soc., Dec., 1956.

Serotonin Found in Lungs

Serotonin has been found, with histamine, in the lungs of laboratory animals, indicating that this muscle-contracting "hormone" may share with histamine responsibility for allergic respiratory disturbances such as asthma.

Public Health Service biochemists who made the findings at the National Heart Institute in Bethesda, Md., also report from studies in rabbits that serotonin is released into the blood along with histamine in experimentally produced allergic reactions (anaphylactic shock).

Institute scientists are now concerned with learning what role, if any, serotonin may play in human allergic disturbances. Technical limitations of the analytical apparatus used to detect serotonin in tissues have prevented demonstrating it in the human lung, but it is expected that this problem will soon be overcome.

No Cure in Sight for "Heedless Horsepower"

"Heedless horsepower" is the new deadly disease which has the American people in its grip and for which no miracle drug is in sight, say The Travelers Insurance Companies of Hartford, Conn. A new booklet released by the group reveals that (1) more than 52,000 Americans were injured in car-bicycle mishaps in 1956; (2) 40,000 Americans were killed in 1956 traffic accidents, (3) speeding was blamed for 13,830 deaths on United States highways in 1956; (4) men were drivers in 89.7 per cent of the year's fatal accidents, (5) more than 22 per cent of 1956 U. S. highway deaths occurred on Saturdays and more than 56 per cent on week ends, and (6) nearly 28 per cent of U. S. drivers involved in 1956 fatalities were less than 25 years old.

Rehabilitation Grant

The World Rehabilitation Fund has obtained a $5,000 grant from Smith, Kline, and French Laboratories to permit a physician from England to come to the United States for a minimum of one year's training in rehabilitation of the physically handicapped.

The American President Lines also has given an international scholarship for a Philippine doctor to study rehabilitation at New York University Bellevue Hospital for a minimum of one year.

The World Rehabilitation Fund is a new voluntary organization to stimulate understanding through sponsorship of international projects in rehabilitation of the physically handicapped. Grants will be allocated to consultation, specialized training, information to the public, and regional meetings.

Clinical Ability Related To Business Efficiency

The doctor who organizes his office most efficiently is generally the one who gives his patients the best medical care according to a report in the August issue of *Medical Economics.*

The article concludes, "The way a man sets up and runs his practice seems to be a good indication of his feeling about medicine. A handsome office and gleaming equipment can't make him a good doctor. But the fact that he invests in such things usually shows that he wants to give his patients the best possible care."

There is much evidence that the immunity resulting from primary infection in childhood is bought at a great price. The risks that it entails are not small, since tuberculosis infections that remain latent during the early years of life may flare up in the form of overt disease after puberty.—René Dubos, Am. Rev. Tuberc., August, 1956.

"It may come as a surprise to many that mental illness has probably the highest recovery rate of any group of illnesses today. In my own state of Kansas, for example, where citizens and politicians have developed active treatment centers from what had once been merely custodial institutions, four of every five patients admitted to a mental hospital for the first time goes home within a year of his admission."—Dr. William C. Menninger, General Secretary, The Menninger Foundation.

MEMORIAL LIBRARY

MEDICAL ECONOMICS BIBLIOGRAPHIES

II. Insurance*

Life insurance has been defined as a "policy on human life," an instrument by which money is paid upon the death of the insured. Life insurance can be found in the Roman Collegia, where the guilds made provisions for decent burials of their members. The earliest life insurance policy was issued in 1583, when a number of merchants of London subscribed to an insurance policy, for a period of 12 months, on the life of William Gybbons, described as a citizen and salter of London.

In 1762, the Equitable Society of London issued policies granting insurance for the duration of life. Premium rates were graduated according to the age of the person insured.

The first life insurance company in the United States was the Presbyterian Ministers' Fund of Philadelphia, which was organized in 1717. Life insurance as we know it today was started with the organization of the Mutual Life Insurance Company of New York, in April, 1842, which was patterned after the Equitable Life Assurance Society of London. In 1951, there were approximately 600 life insurance companies in the United States.

The following articles about insurance have appeared in recent journals and all may be obtained from the Memorial Library of the Texas Medical Association.

Azoy, P. H.: Life Insurance; Facts and Frills, M. Times 84:566-570 (May) 1956.

Burnham, P. J.: The Insurance Examination, Rocky Mountain M. J. 53:1014-1019 (Nov.) 1956.

Davey, Chuck: "Boxing Your Insurance Problems," Virginia M. Month. 83:557-558 (Dec.) 1956.

Dorsett, J. D.: Insurance for the Physician, J.A.M.A. 156: 1448 (Dec. 11) 1954.

Edmiston, R. H.: How to Select Disability Insurance, West. J. Surg. 64:610-612 (Nov.) 1956.

Golden, J. R.: Role of the Life Insurance Trust in Estate Planning, J.A.M.A. 158:1392-1394 (Aug. 3) 1955.

Levy, Michael H.: Can You Pass This Insurance Test? M. Econ. 34:280-290 (Feb.) 1957.

Levy, Michael H.: Do You Own the Right Life Insurance? M. Econ. 34:190-214 (Jan.) 1957.

Miller, P. A.: Life Insurance as an Investment, J. Kansas M. Soc. 56:682-693 (Dec.) 1955.

Ross, R. E.: Avoid "Chronic Termititis"—In Insurance! GP 11:131-133 (April) 1955.

Ross, R. E.: Can You Buy $10,000 Life Insurance? GP 10:136-139 (Nov.) 1954.

Sherwood, H. C.: Professional Courtesy Bows to Blue Shield, M. Econ. 33:229-234 (Jan.) 1956.

Sullivan, D. E.: Why I Bought Bank-Loan Life Insurance, M. Econ. 33:188-200 (Feb.) 1956.

Warme, J. L.: How to Insure Complete Liability Coverage, West. J. Surg. 64:612-614 (Nov.) 1956.

Weber, Gerald F.: The Doctor and His Dollar, Bull. Los Angeles Co. M. Ass. 87:18-19, 76-80 (June 20) 1957.

**This is the second of a series of four bibliographies on medical economics which are being published in the* Journal. *Topics are investments, insurance, partnerships, and fees.*

GIFTS TO THE LIBRARY

Dr. E. W. Breihan, Dallas, 2 journals.
Dr. C. H. Brownlee, Austin, 152 journals.
Dr. D. H. Cooper, Georgetown, 37 books; 59 journals.
Dr. J. E. Johnson, Austin, 7 journals; reprints.
Dr. Heinrich Lamm, La Feria, reprints.
Dr. Albert McCulloh, Brady, 5 bound journals; 71 journals.
Dr. Donald E. Pohl, Austin, 21 journals.
Dr. Morris Polsky, Austin, 1 book; 13 journals.
Dr. Lee F. Scarborough, Austin, 98 journals.
Mrs. J. W. Ward, Greenville, 83 journals; 6 books, reprints.
L. A. Williams, Austin, 1 tape recording.
Dr. David R. Womack, Austin, 72 journals; 5 books.

TAPE RECORDING

Effects of Sitosterol on Serum Cholesterol

By S. W. Hoobler.

★ Motion Pictures

The Doctor Defendant

Black and white, sound, 34 minutes, 1957.

The second in the "Medicine and the Law" film series produced by William S. Merrell Company in cooperation with the American Medical Association and the American Bar Association, this movie presents in concise and dramatic terms the stories of four doctors who find themselves cast in the disturbing role of "The Doctor Defendant." In reviewing these cases, the film also demonstrates how a county medical society professional liability review committee functions.

Complete Vaginal Repair—A Simplified Approach

Sound, color, 20 mniutes, 1956.

A simplified approach to complete vaginal repair is demonstrated in this film prepared by Drs. Stanley F. Rogers, Jack Moore, and Warren Jacobs of the Department of Obstetrics and Gynecology, Baylor University College of Medicine and Methodist Hospital, Houston. Although it is based on procedures developed and reported by many authors, the technique demonstrated has been simplified, is attended by little blood loss, and can be performed in a relatively short time.

★ Books

BOOKS NEWLY ACQUIRED

Askey, John Martin: *Systemic Arterial Embolism,* New York, Grune & Stratton, 1957.

Carter, Charles F., and Smith, Alice Lorraine: *Principles of Microbiology,* ed. 3, St. Louis, C. V. Mosby, 1957.

Chauvois, Louis: *William Harvey, His Life and Times,* New York, Philosophical Library, 1957.

Ciba Foundation Symposium: *Chemistry and Biology of Purines,* Boston, Little, Brown & Co., 1957.

Forkner, Claude E., Ed.: *Practitioners' Conferences Held at the New York Hospital Cornell Medical Center,* vol. 6, New York, Appleton-Century, 1957.

J.A.M.A. Clinical Abstracts of Diagnosis and Treatment, New York, Grune & Stratton, 1957.

Litzenberg, Jennings C.: *Synopsis of Obstetrics,* ed. 5, St. Louis, C. V. Mosby, 1957.

Masserman, J. H., and Moreno, J. L., Ed: *Progress in Psychotherapy,* New York, Grune & Stratton, 1957.

Redisch, Walter: *Peripheral Circulation in Health and Disease,* New York, Grune & Stratton, 1957.

Rifkin, Alfred H.: *Schizophrenia in Psychoanalytic Office Practice,* New York, Grune & Stratton, 1957.

Sigler, Louis H.: *Electrocardiogram,* ed. 2, New York, Grune & Stratton, 1957.

Talbott, John H.: *Gout,* New York, Grune & Stratton, 1957.

Year Book of Neurology, Psychiatry and Neurosurgery, 1956-1957, Chicago, Year Book Publishers, 1957.

BOOK NOTES

Surgical Physiology of the Adrenal Cortex

JAMES D. HARDY, M. S., M. D., F.A.C.S., *Professor and Chairman, Department of Surgery, and Director of Surgical Research, University of Mississippi, Jackson. 191 pages. $5.75. Springfield, Ill., Charles C Thomas, 1955.*

This brief but concise resume of adrenocortical physiology relative to the surgical patient is highly recommended for the surgeon's library. In an era in which both ACTH and cortisone are prescribed liberally and with impunity for conditions ranging from baldness to bunions, and our medical meetings are filled with learned discussions on total eosinophil counts, 17-ketosteroids, and urinary corticoid determinations, such a book should be welcomed as a source of practical information.

Beginning with an outline of adrenocortical function and the physiologic effects of adrenocortical stimulation, Dr. Hardy shows the effects upon the organism of a single operation, of multiple staged operations, of extensive thermal burns, and of adrenocortical reserve noted in malnourished cancer patients. He lists and describes pertinent data regarding the diagnostic and prognostic value and interpretation of total eosinophil response to ACTH stimulation. Urinary corticoid excretion and 17-ketosteroid measurements are discussed as they affect alteration in adrenocortical function.

The chapters on adrenocortical hyperplasia and hyperadrenocorticism are of special interest, as variation from the "classic" clinical picture of adrenocortical dysfunction demands early urinary corticoid determination if one is to arrive at a correct anatomic diagnosis at a time when specific therapy is most needed. Clinical syndromes are intelligently separated and identified. What one might expect from adrenalectomy for essential hypertension and malignant neoplasms is reviewed.

The chapter on ACTH and cortisone therapy are illuminating. Indications and contraindications for these "double-edged swords" are listed and described; certainly the author's word of caution is in order relative to the increased frequency of their use, since this would affect replacement therapy in any patient requiring definitive surgery.

—Dan M. Brown, M. D., Morton.

Clinical Studies in Neurology

HARRY LEE PARKER, M. D., F.R.C.P.I., *Professor of Neurology, Mayo Foundation, Graduate School, University of Minnesota, Rochester. 364 pages. $6.50. Springfield, Ill., Charles C Thomas, 1956.*

Written in conversational style, this is the most readable book on neurology I have ever read. It is a compilation of the clinical, ward-class sessions offered by Dr. Parker, at the Richmond Hospital, Dublin, Ireland, in connection with his teaching as professor of neurology at Trinity College, Dublin.

Essentially, every phase of clinical neurology is covered in that delightful lyrical style completely foreign to this hemisphere. This book particularly emphasizes the bedside or clinical approach in diagnosing and treating neurological problems. It is particularly accurate in regard to the clinical data, history of the case, and the neurological findings. An accurate correlation between the anatomical lesion and clinical findings is also notable. However, in the area of treatment it might be considered a little weak, but on the whole treatment of all treatable conditions is covered adequately.

There are no illustrations, but these are not missed because of the graphic picture of the patient that emanates from Dr. Parker's vivid presentation.

Perhaps the one bad thing about the book is an undercurrent of pessimism which, while correct, seems somewhat unusual in degree.

I feel this book is an excellent reference for bedside clinicians, although it might not interest the "ivory tower" neurologist or research man. It is particularly recommended for the general practitioner, internist, neuropsychiatrist, and anyone teaching neurology as it will offer many suggestions on how to make a lecture more entertaining.

The book is printed in readable type, and has an excellent binding.

—Jackson H. Speegle, M. D., Dallas.

Noradrenaline; Chemistry, Physiology, Pharmacology and Clinical Aspects

U. S. VON EULER, M. D., F.A.C.P. (Hon.), *Professor of Physiology, Faculty of Medicine, Karolinska Institutet, Stockholm, Sweden. 382 pages. $11.50. Springfield, Ill., Charles C Thomas, 1956.*

This monograph contains a thorough and exhaustive treatment of the chemistry, physiology, pharmacology, and clinical aspects of noradrenaline. It is edited by Robert E. Pitts, M. D., Ph. D., professor of physiology and biophysics at Cornell University Medical College, and contains an introduction by Sir Henry H. Dale. It would seem without doubt to represent the greatest mass of evidence relating to the subject ever published under one cover. Its bibliography contains 750 references to publications, the majority of which have appeared since 1946. It is divided into 14 chapters and contains an author and subject index. It is an authoritative presentation of accumulated data on the suprarenal medullary hormone.

—Darrell B. Faubion, M. D., Austin.

Hunterdon Medical Center

The Story of One Approach to Rural Medical Care. RAY E. TRUSSELL, M.D., M.P.H., *former Director of Hunterdon Medical Center; Executive Officer of Columbia University School of Public Health and Administrative Medicine. 236 pages. Published for The Commonwealth Fund. Cambridge, Mass., Harvard University Press, 1956.*

Textbook of Gynecology

EMIL NOVAK, M.D., D.Sc. (Hon.), F.A.C.S., *Assistant Professor Emeritus of Gynecology, Johns Hopkins Medical School; and* EDMUND R. NOVAK, M.D., F.A.C.S., *Instructor in Gynecology, Johns Hopkins Medical School, Baltimore. ed. 5. 840 pages. $11. Baltimore, Williams & Wilkins, 1956.*

The Drs. Novak have done a worth-while job in bringing out the new edition of their textbook. The book is written in clear, concise language and is relatively easy to read. The subject is covered as fully as one could expect in a work of this type, but few if any details of operative technique are included.

The subject of genital carcinoma is well covered. The authors point out the controversy being waged between those who feel that preoperative irradiation followed by surgery is the treatment of choice and those who feel that surgery without preoperative irradiation is the treatment of choice. The authors let you take your choice, but it is apparent that they believe that preoperative irradiation plus panhysterectomy and bilateral salpingo-oophorectomy offers the best chance of effecting cure in these patients.

The chapter on sterility covers the subject reasonably well, although I feel that more emphasis should have been placed on the use of hysterosalpingography as a diagnostic aid. Treatment in sterility is covered briefly. Mention is made of irradiation of the ovaries or pituitary in the treatment of sterility and the fact that it should not be done. Many geneticists share this view. It may be of interest to know that the goats which were tethered on the island during the Bikini atomic bomb tests have now gone through nine to ten generations without mutants having been produced.

Generally speaking, this textbook is written with most emphasis being placed on pathology and diagnosis and with less on treatment. I feel this is wise. The book undoubtedly will continue to be a favorite in teaching institutions and among individual physicians seeking a ready reference. The bibliography is excellent.

—Gray E. Carpenter, M. D., El Paso.

Clinical Examinations in Neurology

Members of the Section of Neurology and Section of Physiology, Mayo Clinic and Mayo Foundation for Medical Education and Research, Graduate School, University of Minnesota, Rochester: JAMES A. BASTRON, M. D.; REGINALD G. BICKFORD, M. B.; JOE R. BROWN, M. D.; EDWARD C. CLARK, M. D.; KENDALL B. CORBIN, M. D.; DAVID D. DALY, M. D.; LEE M. EATON, M. D.; NORMAN P. GOLDSTEIN, M. D.; EDWARD H. LAMBERT, M. D.; CLARK H. MILLIKAN, M. D.; DONALD W. MULDER, M. D.; HARRY L. PARKER, M. D.; E. DOUGLAS ROOKE, M. D.; JOSEPH G. RUSHTON, M. D.; ROBERT G. SIEKERT, M. D.; JACK P. WHISNANT, M. D. *370 pages. $7.50. Philadelphia, W. B. Saunders Company, 1956.*

This contribution to the neurological literature conforms very well to the purpose as laid out in the preface "to facilitate . . . mastery of the clinical neurological examination" and "as a series of working blue prints."

The layout and planning of the various items seem to be comprehensive and adequate and follow a consistent pattern which should be useful not only to the novice but to the practitioner in any field of medicine. The large amount of space devoted to the study of the muscles and their functions seems to be well justified in view of the fact that in our present day practice there is so much traumatic involve-

ment of the extremities due to warfare, transportation accidents, and so forth. The forms utilized are certainly comprehensive. For the practical use of the general practitioner, all would not be useful but would serve a fine basis for the development of individual planning for each physician who uses diagnostic neurological techniques. The section on mental function and autonomic function certainly seems to have been cut to the bare minimum for a good study of the individual. At times there seems to be an excessive amount of preoccupation with what might be considered relatively minor tests, but this does not hold true in the over-all pattern.

One can readily say that not only could this volume be exceedingly useful to the student, but of particular importance to the general practitioner, neuropsychiatrist, and even the orthopedist.

—Charles H. Brown, M. D., Wichita Falls.

Organized Home Medical Care in New York City

A Study of Nineteen Programs by the Hospital Council of Greater New York. 538 pages. $8. Cambridge, Mass., published for the Commonwealth Fund by Harvard University Press, 1956.

This book is a comprehensive and detailed report of 19 hospital programs of organized home medical care in New York City conducted over a period of two years, 1953 to 1955.

The purpose of the book is to report one form of medical care provided on a somewhat experimental basis since organized home medical care for the indigent and medically indigent is not now widely provided over the country.

For some patients medical care is best satisfied by institutionalization, but some can be served better by care in familiar home surroundings with hospital services and facilities at their command. Interviews with patients in all walks of life reveal that home care patients are primarily elderly people. They overwhelmingly prefer home care to hospitalization when medical, nursing, and social workers provide services by visits in homes along with physical and occupational therapists where needed.

Types of services offered, objectives and personnel programs, administration and cost of services, and attitudes of patients and their families are some of the most informative chapters. Tables, charts, and answers to questionnaires give further statistics on home care.

The reader finds the program has been criticized in some aspects, but this does not mean home care is unworkable. A review of the potentialities will make it possible to formulate improved standards for operation through community planning along with the acceptance of the broader social and economic implications of home medical care.

A definite conclusion drawn from the "experimental study" states that provision of medical care should not be the responsibility of the Department of Welfare as its restrictive policies operate under procedures not compatible with adequate medical care.

—Albert G. Barsh, M. D., Lubbock.

The Accident Syndrome;
The Genesis of Accidental Injury,
A Clinical Approach

MORRIS S. SCHULZINGER, M.A., M.D. *234 pages. $6.50. Springfield, Ill., Charles C Thomas, 1956.*

Dr. Schulzinger sums up his study of accidents and accident proneness with some of these interesting findings.

The greater percentage of accidents are usually the affliction of male, young, irresponsible, and maladjusted persons. Their incidence shows a pattern of distribution from low in February to high in July and August, and in the same pattern from low at 5 a. m. to peak at 5 p. m. Accidents tend to be repeated at specific times and to certain parts of the body. More often they occur when the person is under stress or strain. These and many other findings form the theory of the accident syndrome. The author has made a study of accidents for the past 26 years and has covered 38,000 cases, as an industrial physician.

His conclusions are interesting and timely. For a student of accidents and particularly automobile accidents, the book is highly recommended.

The Stress of Life

HANS SELYE. *324 pages. $5.95. New York, McGraw-Hill, 1956.*

This volume by one of the great pioneers of medicine and the creator of the stress concept is addressed primarily to the general public. Dr. Selye develops the stress concept from antiquity through its evolution to the present complex theory incorporating the ideas of stress, the general and local adaptation syndromes, the endocrine adaptive hormones (ACTH, cortisone, etc.) and the manifold stressors which act on the body from birth to death.

The laboratory investigation of the stress mechanism is discussed along with the problems involved and their possible solutions. The book is all the more interesting because the author conveys so many of his highly personal thoughts and emotions throughout. One section describes the diseases of adaptation (cardiovascular diseases, digestive disorders, mental derangements) which apparently result from a failure in the stress fighting mechanism and discusses possible means of combating these diseases. Inflammation is covered in detail.

Dr. Selye explains his interesting "reaction theory" which postulates a subcellular functional unit which can exhibit the generally accepted characteristics of life, thus challenging the cell as the smallest functional unit of life.

The closing portions of the volume are devoted to the philosophy of life which the author has developed by his close association with the study of stress. In a sympathetic yet honest manner, Dr. Selye analyses the human animal's needs, motivations, and ultimate aims and demonstrates how the proper application of the principles of the stress concept may enable one to live a longer and more enjoyable life.

This reviewer feels that Dr. Selye's philosophic implications alone would make this volume well worth reading.

—Raymond H. Tull, Jr., M. D., Abilene.

The Initial Management of Thoracic
And Thoraco-Abdominal Trauma

LAWRENCE M. SHEFTS, M.D., *Thoracic Surgery Consultant to Brooke Army Hospital, Fort Sam Houston; Co-Chief, Thoracic Surgery Service, Robert B. Green Memorial Hospital, San Antonio; Associate Professor of Surgery (Thoracic), University of Texas Postgraduate School of Medicine, Robert B. Green Memorial Hospital, San Antonio. 121 pages. Springfield, Ill., Charles C Thomas, 1956.*

An excellent review of the management of injuries of the chest is presented in this book. The opening chapter deals with the resuscitation of the injured patient. In this section, the author thoroughly covers the important points in evaluating and instituting therapy. The treatment and causes of shock associated with chest injuries is discussed. The management of various types of wounds such as tension pneumothorax, hemothorax, and sucking wounds of the chest are described. In this section, the author presents many

important details which should be of interest to any physician who might be called on to manage a chest injury.

The second section deals with penetrating wounds of the chest. Here the author discusses injuries to the various intrathoracic organs and their management. An interesting historical résumé of injuries to the heart is presented in this section along with the management of heart injuries.

In the third and fourth chapters, thoraco-abdominal injuries and closed injuries of the chest are discussed. The management of the flail chest in this section is especially worth while. With the increasing number of automobile accidents, the "flail chest" is encountered more and more often. This section thoroughly covers the management of this type of injury. The importance of tracheotomy with this type of injury is stressed, and methods for stabilizing the chest wall are reviewed.

In conclusion, the author presents a number of illustrative cases which are instructive as well as interesting reading. This book will be useful to any physician who may be required to manage thoracic trauma.

—E. S. Crossett, M. D., El Paso.

Cancer Cells

E. V. COWDRY, *Director, Wernse Cancer Research Laboratory, Washington University, St. Louis. 677 pages. $16. Philadelphia, W. B. Saunders, 1955.*

Dr. Cowdry, in his usual meticulous and thorough presentation, has taken the cancer cell and bombarded it from all angles. His bibliography consists of more than 3,200 references. Even to attempt a summary is impossible, since every paragraph contains important and interesting reading.

Dr. Cowdry begins his book with a description of the normal cells and their variation to their own and abnormal environments. He then compares the normal cell to the cancer cell from morphologic appearance, chemical properties, reactions to different environments and stimuli, methods of growth, and so forth. He even delves into the cancers of plants and animals. He discusses various carcinogens, listing about 400, and goes into great detail concerning many of these, discussing the possible methods of carcinogenesis, the time interval, and other pertinent facts. Practical problems, such as smoking and lung cancer are discussed in detail accompanied by accurate statistics. He presents, throughout the book, his own ideas and findings and, from his huge bibliography, those of the best brains in cancer research.

In this book are concise charts of statistics, beautiful illustrations, and many fine photographs and photomicrographs.

—Martha Madsen, M. D., Midland.

Sports Injuries Manual for Trainers and Coaches

DONALD F. FEATHERSTONE, *Member of the Chartered Society of Physiotherapy; Member of the Committee for Research into the Treatment of Athletic Injuries; Principal of the Athlete's Injury Clinic, Southampton; Late Assistant Physiotherapist, Physical Medicine Dept., Central Middlesex Hospital, London. 132 pages. $6. New York, Philosophical Library, 1956.*

Laboratory Tests in Common Use

SOLOMON GARB, *Assistant Professor of Clinical Pharmacology, Cornell University Medical College. 160 pages. $2. New York, Springer Publishing Company, 1956.*

Educating Spastic Children; The Educating And Guidance of Cerebral Palsied

F. ELEANOR SCHONELL, M.A., Ph.D., *Formerly Research Fellow, University of Birmingham, Department of Paediatrics and Child Health. 242 pages. $6. New York, Philosophical Library, 1956.*

This book is a monograph based on research in England, United States, Canada, Australia, and New Zealand. It presents a brief and concise review of the nature of cerebral palsy and a short history of the development of training facilities for cerebral palsied children in the countries named.

Part 2 of the book gives the results of a psychologic and medical survey of 354 cerebral palsied children in the Birmingham section of England. The researchers found that the probable incidence of this disease among school age children is about 1 per 1,000. A chapter on the use and interpretation of the Terman Merrill intelligence scale is interesting and informative. The author feels that the results of intelligence tests require careful evaluation because of the many interrelated factors, emotional and physical, present in these children which will influence their results. Also as the physical handicap increases the I. Q. decreases.

The third section of the book deals with the educational provision for cerebral palsied children. The type and level of education according to the degree of mental and physical ability is discussed thoroughly.

The fourth part of the book views the psychologic aspect of children with this disease and gives suggestions and ideas for parents in caring for their children with cerebral palsy.

This is a well written and informative book on a complex and frustrating condition. The book will be of special interest to those who deal daily with these children, especially psychologists, teachers, and therapists. Sections of the book would be of interest to the parents of cerebral palsied children also. This book can be highly recommended.

—T. C. McCormack, M.D., Austin.

Training of the Lower Extremity Amputee

DONALD KERR, B.B.A., *Director, National Institute for Amputee Rehabilitation, Lodi, N. J., and* SIGNE BRUNNSTROM, M. A., *Consultant in Amputee Training, Institute of Physical Medicine and Rehabilitation, New York University-Bellevue Medical Center, New York. 272 pages. $6.50. Springfield, Ill., Charles C Thomas, 1956.*

The two authors are well known in rehabilitation circles for their contributions toward the training of amputees. Mr. Kerr, himself an amputee, has set a fine example of athletic accomplishments for other amputees to follow. Miss Brunnstrom is a registered physical therapist of great experience with amputee training. Both have devoted most of the past 15 years to this subject.

The book is written concisely but clearly. The subject is covered completely and is profusely illustrated. It can serve as a guide equally well for physicians, technicians, and patients.

The problems that beset the new amputee are reviewed. His relations to his family and friends, his physician, the limbmaker, and his future employer are explained in order to quiet the many doubts that exist and in order to emphasize what responsibilities the amputee must accept.

The period between surgery and receiving the prosthesis should be a busy one with proper bed posture, early stump exercises, proper bandaging, conditioning the stump, strength-

ening the good leg, mastering crutches, building coordination, and conditioning the body as a whole, physically and mentally. These procedures are explained.

An orientation on prosthetics, detailed enough for physicians and patients but inadequate for limbmakers, describes below knee and above knee prostheses, their component parts, and materials used in construction. Their mode of operation and signs of misfit are analyzed. Good detail is given to the use of stump socks, putting on the limbs, and dressing.

Training procedures, including pre-walking exercises (for coordination, balance, and conditioning), walking, and activities of daily living are given separately for the single above-knee amputee, the hip disarticulation, the single and double below-knee amputee, the double (one above and one below-knee) amputeee, and the double above-knee amputee. Techniques are presented in great detail in outline form and are illustrated with both line drawings and photographs.

The book concludes with a chapter on techniques utilized in social dancing and participation in various sports.

—Oscar O. Selke, Jr., M. D., Houston.

Clinical Pathology; Application and Interpretation

BENJAMIN B. WELLS, M.D., Ph.D., *Director of Clinical Investigation, The Lynn Clinic, Detroit; former Professor of Medicine and Chairman of the Department of Medicine, Creighton University School of Medicine, Omaha. ed. 2. 488 pages. $8.50. Philadelphia, W. B. Saunders Company, 1956.*

The second edition of this excellent book has been revised and expanded with the incorporation of many medical advances of the past five years. Examples of new material are the discussions of the TPI test for syphilis, tubeless gastric analysis, uropepsinogen excretion, the milk-alkali syndrome, the starch tolerance test of pancreatic function, hereditary abnormalities of hemoglobin, radioiodine studies in thyroid disease, tests for plasma acetone, and hemorrhagic states during pregnancy. A tenth chapter, covering laboratory procedures suitable for average office practice, has been added.

This book is meant to be neither a textbook of medicine nor a textbook of clinical pathology, but is aimed at bridging the gap between such works. As the author states in his preface, it is offered to medical students and physicians as a guide in the application and interpretation of clinical laboratory studies.

The author in his introductory chapter stresses the intelligent, common sense use of laboratory tests as opposed to random, uncritical ordering which serves no purpose except to increase the work of the laboratory and the cost of medical care to the patient. This book can be highly recommended.

—W. N. Powell, M.D., Temple.

Drugs in Current Use, 1957

WALTER MODELL, M. D., F.A.C.P., *editor; Associate Professor, Clinical Pharmacology, Cornell University Medical College. 152 pages. $2. New York, Springer Publishing Company, 1957.*

A Dictionary of Dietetics

RHODA ELLIS, Ph.D., *Instructor of Foods and Nutrition, Department of Home Economics, Brooklyn College, New York. 152 pages. New York, Philosophical Library, 1956.*

Handbook of Pediatric Medical Emergencies

ADOLPH G. DESANCTIS, M. D., *Professor and Chairman of the Department of Pediatrics, Postgraduate Medical School, New York University-Bellevue Medical Center, New York. ed. 2. 389 pages. $6.25. St. Louis, C. V. Mosby, 1956.*

This second edition of the handbook constitutes a major revision in that much of the original text has been completely rewritten, and new illustrations and tables have been added to make it a more complete treatise. The chapters on metabolic emergencies, accident and poison prevention, genitourinary emergencies, and respiratory paralysis in poliomyelitis are all new. The excellently illustrated section on commonly used pediatric procedures has been expanded to broaden its scope.

The arrangement and format of the book is excellent, and the large type makes for easy reading, prompt orientation, and quick reference.

This volume is loaded with information that is immediately helpful in the handling of pediatric medical emergencies, and it will be appreciated by all physicians who are confronted with these conditions. The pediatrician or generalist who keeps this book on his desk will find himself referring to it frequently.

—Bob Alexander, M. D., Spur.

Soybeans for Health, Longevity and Economy

PHILIP S. CHEN, Ph. D., *Professor of Chemistry, Atlantic Union College; with assistance of* HELEN D. CHEN, M. A., *National Science Foundation Fellow, Cornell University. 241 pages. $3. South Lancaster, Mass., Chemical Elements, Publishers, 1956.*

"Any plant which with one man's labor for a day will yield food furnishing enough calories to support a person for one year, enough protein to supply a year's need for five persons, enough calcium for two, and enough thiamine for the yearly requirements of seven people—such a plant is bound to win friends and influence people."

The soybean is a food that is as nearly perfect as cow's milk, but at the same time is rich in iron and vitamin C (when sprouted). Its milk is used as a substitute for cow's milk for individuals who are allergic to it.

This little book by Dr. Chen comes at an opportune time. The increasing incidence of cardiovascular disease has focused the attention of the medical profession on nutrition. The possible relationship of "bad fats" to cardiovascular disease is in the news.

The protein of the soybean is of high quality and resembles that of animal protein. Soy oil is 95 to 100 per cent digestible and consists almost entirely of triglycerides. It is an excellent source of the essential fatty acids now being referred to as vitamin F. Soybean oil contains large amounts of lecithin and fair amounts of fat soluble vitamins. Unlike animal fats whose sterol is cholesteral, thought to be a chief offender for arteriosclerosis, heart disease, and kidney stones, soybean oil contains phytosterol, which produces no known harmful effects on the human body. Seventy per cent of the sterols of the soy oil is sitosterol, which is now being detailed to the medical profession with a claim that it will decrease the cholesterol level of the blood.

This little book tells about all there is to know regarding the soybean. In addition to the nutritive values, it describes soy products, soybean culture, and preservation. It also includes a large variety of recipes. Every doctor interested in nutrition should read this book. It is easy to read and can be "digested" in an evening.

It is said that the future of medicine lies in the field of

prevention. I believe the greatest part of prevention in medicine lies in the field of nutrition.

The soybean is a wonder food. Unfortunately the soy oil in America has been hydrogenated, which changes a good fat into a "bad fat." Most of the oleomargarine and mellorine is made from hydrogenated soy oil. Hydrogenation destroys the essential fatty acids and produces a substance that is cheap and will keep. But undoubtedly the protective value of the natural oil is lost, and some of our best authorities believe that the hydrogenated oil is a direct cause of cardiovascular disease.

—Joe D. Nichols, M. D., Atlanta.

Textbook of Medical Physiology

ARTHUR C. GUYTON, D.M., *Professor and Chairman of the Department of Physiology and Biophysics, University of Mississippi School of Medicine. 1030 pages. $13.50. Philadelphia, W. B. Saunders Company, 1956.*

This text takes up physiology in an orderly and understandable manner such that the medical student and the practitioner alike can read it with ease and enjoy it at the same time they are coming abreast of the developments in this rapidly developing field. Even the use of radiation and isotopes in physiologic investigation comes in for limited discussion, which is at least an introduction in a proper manner to the medical student. The section on special fluid systems of the body — pleural, pericardial, synovial, peritoneal, ocular, and cerebrospinal—was thought to be unique in its organization, and it is highly recommended to anyone interested in this subject. The grouping together and discussion of subjects of related interest is characteristic of all systems covered by the entire book.

Because of its length, an adequate discussion of the book's entire contents is not possible, but for the inquiring mind that likes to know the basic fundamentals of body processes and how they function in health and disease, this book is recommended as informative. Electroencephalography is well illustrated. One might go on indefinitely citing newer developments which make this valuable reading for anyone who is 20 to 30 years away from his instruction in this subject in medical school.

The volume is printed on an excellent grade of paper with good type and timely illustrations. The state of Mississippi has just cause to be proud of having Dr. Guyton as its professor of physiology and biophysics.

—Joe C. Rude, M.D., Austin.

Diseases of the Skin

RICHARD L. SUTTON, JR., M. D., F. R. S. (Edin.), *Chairman of the Department of Dermatology, University of Kansas Medical Center. ed. 11. 1479 pages. $29.50. St. Louis, C. V. Mosby, 1956.*

This is the eleventh edition, the first complete revision in 17 years, of what has become a standard American classic among textbooks of dermatology. It is a big, comprehensive, yet discerning compendium of the vast areas today embraced within the scope of skin diseases, syphilis, and allied conditions. Augmenting his breadth of coverage of these extensive fields, Dr. Sutton continues to reveal an increasingly satisfying depth of perspective and critical analysis of current world thinking in dermatology.

There are a number of commendable features in this excellent book. The more important bibliographic references are inserted into the text itself, in ingeniously abbreviated forms. Supplementing these is accessory bibliographic material at the end of sections and chapters; many of the references are followed by a few staccato phrases, in parentheses, suggesting the areas covered by the article and its quality. Illustrations (of which there are 1,972) are frequent, of good quality, and nicely juxtapositioned. Charts are extensive, complete, and accurate.

The unique feature of this book, however, is the vigorous literary style and the effective, stimulating, often entertaining projection of the author's own views and personal conversation with an interesting consultant, rather than a formal pedagogic presentation. Dr. Sutton has a point of view and he effectively articulates it. It is well epitomized in the preface: ". . . the endeavor to reflect contemporary medical thinking and practice involves a variety of problems. These are problems that become more and more challenging as one measures the capacity of a human being against the quantity of dermatologic science (and fiction) that appears in print."

The book is highly recommended to general as well as to specialty practitioners, as a readable, authoritative, useful text.

—Morris Polsky, M. D., Austin.

Fifth Annual Report on Stress

HANS SELYE, M.D., Ph.D., D.Sc. (Hon.), F.R.S. (Canada), F.I.C.S. (Hon.), *Professor and Director, Institut de Medecine et de Chirurgie experimentales, Universite de Montreal, and* GUNNAR HEUSER, M.D. (Cologne), *Research Associate and Librarian of the Institut de Medecine et de Chirurgie experimentales, Universite de Montreal, Eds. 815 pages. New York, M. D. Publications, Inc., 1956.*

This is a reliable and inclusive guide to the recent literature on stress which supplements the previous volumes of this series. The book contains feature articles by 14 internationally famous specialists, including the unpublished findings of Dr. Hans Selye. There are more than 6,000 references arranged in a variety of indices for the convenience of the reader.

The annual report on stress is an important contribution to medical literature.

The Physician-Writer's Book

RICHARD M. HEWITT, M. D., *Senior Consultant, Section of Publications, Mayo Clinic. 415 pages. $9. Philadelphia, W. B. Saunders, 1957.*

Most physicians are not trained in writing; yet most doctors write. For the doctor who wishes to be as successful in his authorship as he strives to be in his practice, a handbook which calls attention to the basic principles of good exposition, whatever the subject matter, and to some of the pitfalls peculiar to writing about medical topics is an asset, if not a necessity.

Dr. Hewitt's book does not contain all the answers, but it contains a great many. Titles, legal risks, medicalese, how to test for quality in an article, tables and illustrations, ethics in writing, the verbal-arithmetical muddle—these are topics chosen at random from the extensive table of contents. One of the most interesting and helpful sections is on words "and topics suggested by them." Arranged in alphabetical order and covering 30 pages, this section of comment is typical of the facts, informality, and quiet humor that pervade the entire volume. Medical editors will find this manual a worth-while addition to their own reference shelf as well as a friend in the hands of their contributors. For those who do not write for publication but do prepare talks for medical societies or civic clubs, Dr. Hewitt's book also has application.

Care of the Long-Term Patient; Chronic Illness in the United States

Commission on Chronic Illness. 606 pages. $8.50. Published for the Commonwealth Fund. Cambridge, Mass., Harvard University Press, 1956.

Of special interest to all physicians in general practice as well as to gerontologists, this volume presents a wealth of information on chronic disease, illness, and disability in the United States, based on studies covering the period of June, 1949-June, 1956.

Long-term patients are "persons suffering from chronic disease or impairments . . . requiring care for a continuous period of at least 30 days in a general hospital or care for a continuous period of more than 3 months in another institution or at home, such care to include medical supervision and assistance in achieving a higher level of self-care and independence."

Estimate places long-term patients in the United States at 5.3 million of whom 1.1 million are in hospitals and institutions while 4.2 million live at home with relatives or in foster homes. This book details a Maryland survey (1952) of more than 4,000 long-term patients, primary diagnoses in order of incidence being heart, other circulatory, hemiplegia, fractures, arthritic conditions, paralysis and central nervous system disorders, mental illness, diabetes, neoplasms, and other diseases of less frequent occurrence.

This outstanding volume stresses the need for (1) keeping long-term patients at home whenever possible; (2) good medical care and experienced graduate nursing care; (3) research into nature and prevention of chronic disease; (4) rehabilitation and stimulating in patients the "will to live"; (5) more adequate financing and remuneration for professional care; (6) maintaining close physician-patient relationship.

—Carl F. Jordan, M. D., and
H. V. Helbing, M. D., Fort Worth.

Battle for the Mind

WILLIAM SARGANT. *263 pages. $4.50. Garden City, N. Y., Doubleday & Company, 1957.*

William Sargant spells out and illustrates the basic technique used by evangelists, psychiatrists, and brain-washers to disperse the patterns of belief and behavior already established in the minds of their hearers, and to substitute new patterns for them. A chapter on how to avoid being indoctrinated is included.

Dr. Sargant is physician in charge of the Department of Psychological Medicine at one of England's oldest and best known medical schools.

Clinical Roentgenology, IV, The Digestive Tract, The Gall Bladder, Liver and Pancreas, The Excretory Tract and Special Studies Emphasizing Differential Considerations

ALFRED A. DE LORIMIER, M. D., *Radiologist, Saint Francis Memorial Hospital, San Francisco;* HENRY G. MOEHRING, M. D., *Radiologist, Duluth Clinic, Duluth, Minn.;* JOHN R. HANNAN, M. D., *Radiologist, Cleveland, Ohio. 676 pages. $24.50. Springfield, Ill., Charles C Thomas, 1956.*

This volume considers the roentgenographic aspects of the digestive and genitourinary systems. The authors first discuss the abdomen and the information that can be derived from films made without the use of contrast media. This is followed by a comprehensive study of lesions of the esophagus, stomach, intestines, gallbladder, and biliary duct system. The sections on the genitourinary tract are excellent and include special aspects of the male genital tract as well as obstetrical and gynecological roentgenology.

Under each pathological condition there is included a general consideration of the disease process, clinical findings, roentgen manifestations, differential diagnosis, any pertinent laboratory findings, and a bibliography.

The authors have collected a tremendous amount of material and have presented it in a thorough yet concise manner. The illustrations are numerous and excellent. The publishers are to be congratulated on the quality of the reproduction and general format.

This book is recommended to radiologists as well as clinicians. It should prove most helpful to the latter in their consultations with the radiologist concerning x-ray examinations of their patients.

—George R. Hrdlicka, M. D., Pampa.

Clinical Management of Varicose Veins

DAVID WOOLFOLK BARROW, M. D., *Professor of Surgery, Marquette University School of Medicine; Assistant Director of Surgery, Milwaukee County Hospital, Milwaukee. Foreword by* ARTHUR W. ALLEN, M. D., *Former Chief, East Surgical Service, Massachusetts General Hospital, Boston. ed. 2. 169 pages. $6. New York, Paul B. Hoeber, Inc., Harper & Brothers, 1957.*

This small book is very enlightening. Chapter I gives the history and anatomy of varicose veins. "The Great Hippocrates is said to have advocated free incision into overlying skin, perhaps trying to get rid of harmful humors or hoping that cicatrization would obliterate the varix." From this quotation one can see that varicose veins and the treatment thereof goes back into antiquity. There are three fine pictures which provide a good anatomy lesson.

Chapter II discusses physiology and etiology of varicose veins. Here the author gives case histories and theories. Chapter III goes into the pathology of these varices.

Chapter IV describes symptomatology. The author goes into detail as to the cause of many of the symptoms. Chapter V describes examination of the patient. Here the Trendelenburg position with the tourniquet application is described.

Chapter V deals with varicose vein injection. The author gives the statistics and reasons for unsatisfactory use of this procedure. He tells how to select cases for this particular procedure, and discusses the sclerosing solutions that have been used.

Chapters VII, VIII, and IX describe methods of surgery of varicose veins in the long saphenous, short saphenous, and incompetent veins. The stripping technique is described in detail; many illustrations in all three groups are very helpful.

Chapters X and XI deal with the complications and management of sudden massive hemorrhage, subcutaneous ecchymosis, varicose ulcer, cellulitis, and varicose eczema. Thrombophlebitis and its frequency in varicose veins is also noted in the latter chapter.

Chapter XII goes into considerable discussion of after care of the varicose extremity and prophylaxis as to recurrence.

There is an enlightening bibliography given in chapters, which is indicative of the research that the author has put into preparation of this book. This small brochure would be helpful to anyone who does any type of varicose vein surgery.

—Ernest F. Cadenhead, M. D., Brownwood.

Dictionary of Poisons

IBERT MELLAN *and* ELEANOR MELLAN. *150 pages. $4.75. New York, Philosophical Library, 1956.*

The Menninger Story

WALKER WINSLOW. *350 pages. $5. Garden City, N. Y., Doubleday & Company, Inc., 1956.*

This is a very interesting story that deals primarily with three Kansas physicians who, like so many great men, started their careers with meager beginnings, and through the help of time, stability, and perseverance, established the world's leading psychiatric center in the middle of the plains of Kansas.

Dr. Charles Menninger started his career in medicine as a homeopathic physician, but feeling inadequate and insecure in medicine, he strived continuously until he attained an M. D. degree. Through his guidance and extraordinary drive, his sons were brought into the field of medicine and psychiatry. In this father and sons team, the field of psychiatry had its greatest champions, and much of its present day prestige is due to their efforts.

This realistic and moving account of the life and practice of the Menningers is not without humor and human interest, and should hold the attention of even the busiest physician.

—Curtis R. Haley, M. D., San Augustine.

The Morphology of Human Blood Cells

L. W. DIGGS, M. D., *Professor of Medicine and Director of Medical Laboratories, University of Tennessee and City of Memphis Hospitals; Consultant in Hematology, Armed Forces Institute of Pathology, Washington, D. C.;* DOROTHY STURM, *Instructor, Memphis Academy of Arts; and* ANN BELL, B. A., *Instructor in Medicine, University of Tennessee. 181 pages. $12. Philadelphia, W. B. Saunders Company, 1956.*

This atlas for medical students and technologists, illustrating the morphology of normal and pathological cells, places emphasis on the recognition of individual cells and their differential morphology rather than on the diseases of the blood and blood forming organs. Beautiful illustrations by Dorothy Sturm depict the blood cells in color with great attention to accuracy of detail.

The organizational charts showing the origin of cells and their relationship to the circulating blood are especially helpful. The diagrammatic representation of the fixed tissue cells of the bone marrow is also illustrated. The leukemia types, infectious mononucleosis, and myelomas are dealt with adequately by color plates. Lupus erythematosus likewise receives considerable attention and is interesting in its detail, as are other sections dealing with lipid diseases such as Gaucher's and Nieman-Pick. The section on techniques and methods dealing with the making of blood and bone marrow smears has many helpful suggestions as to preparation, staining, and analysis of findings.

This, together with a well selected list of authors and publications for collateral reading, will be a most appreciated atlas by laboratory workers everywhere.

—Joe C. Rude, M. D., Austin.

Medical Writing

WALTER C. ALVAREZ; HUGH CLEGG; FELIX MARTI-IBANEZ; HANS SELYE; *and* HENRY E. SIGERIST. *66 pages. New York, M D Publications, Inc., 1955.*

As anyone who reads this review will perceive, a rich style of medical writing is not acquired simply by reading a book. Each of these eminent authors has his own style and manner of presentation, and all are effective.

It is the reviewer's opinion that the information to be gained in reading such a monograph is enhanced if one has had the privilege of hearing one of these gentlemen speak, for the personalities involved are colorful indeed.

Each individual handles his subject with clarity and directness and gives helpful suggestions for anyone who aspires to medical writing. If the fundamental principles involved were strictly followed, our articles in the literature would be more informative and more accurately reported. In short, more time would be taken in writing a good presentation; less of the reader's time would be consumed in obtaining the desired information; and our journals would be less voluminous.

—Joe C. Rude, M. D., Austin.

★ **Texas Medical Association**

PR, Indoctrination Programs For Executive Council Week End

New members of the Texas Medical Association will learn the purposes, duties, and services of their organization during the second Indoctrination Program, which will be held Saturday, September 7, in Austin. Also on the agenda for the week end is the third annual Public Relations Conference for officers of county medical societies, meetings of various councils and committees of the Association, presentation of the General Practitioner of the Year Award to Dr. Bryan of Dublin, and the convening of the Executive Council September 8.

Guest speakers for the Public Relations Conference will be Leo E. Brown, Chicago, executive assistant to the general manager in charge of public relations, American Medical Association; Dan J. Forrestal, St. Louis, president, public Relations Society of America; and Melvin T. Munn, Dallas, director of public relations, Blue Cross-Blue Shield of Texas. Sessions of the conference will be designed to aid county societies in planning effective public relations programs at the local level.

Besides explanations of the functions of the Association, the indoctrination program will include talks on medical economics, health insurance, ethics, legislation, workmen's compensation, and legal aspects of practice.

Councils and committees of the Association will meet Friday evening and all day Saturday, and a hospitality hour in the evening will complete the day's activities.

Sunday, the Executive Council will meet to hear reports of council and committee meetings.

3 of 4 TMA Members Are Veterans

Of the 4,855 members of the Texas Medical Association who have returned personnel data forms to the headquarters office since last November, 3,788 indicated they have been in military service. Another 201 members are known from other types of records to have been in the armed forces, but information on military service is not available on all of the 7,550 Association members.

Public Relations Conference

Texas Medical Association Headquarters Building, Austin
Saturday, September 7, 1957

Morning Session, 10:30 a. m.

Call to Order—JOE R. DONALDSON, M. D., Pampa, Chairman, Committee on Public Relations.

Keynote for Conference—DENTON KERR, M. D., Houston, President, Texas Medical Association.

MR. BROWN

The Bell Tolls—LEO E. BROWN, Chicago, Executive Assistant to the General Manager in Charge of Public Relations, American Medical Association.

Presentation of General Practitioner of the Year—DR. HOWARD O. SMITH, M. D., Marlin, President-Elect.

Basic PR Projects Which Every County Medical Society Should Have (Panel Discussion).
Glenn D. Carlson, M. D., Dallas, Moderator.

1. *Public Grievance Committees*—R. MAYO TENERY, M. D., Waxahachie.
2. *Emergency Medical Care*—CHARLES R. YOUNKIN, M. D., Houston.
3. *Medical Economics and Medical Service: Promotion of Voluntary Health Insurance and Achieving Greater Understanding of the Cost of Medical Care*—EVERETT C. FOX, M. D., Dallas.
4. *Telling Our Story to the Public: Press, Radio, and Television*—A. FLETCHER CLARK, JR., M. D., San Antonio.

Discussion Period.

Afternoon Session, 2:00 p. m.

What Impression Do We Make?—DAN J. FORRESTAL, St. Louis, President, Public Relations Society of America.

MR. FORRESTAL

What's New in County Society PR? (Panel Discussion).
VAN D. GOODALL, M. D., Clifton, and THOMAS L. ROYCE, M. D., Houston, coordinators.

1. *Grievance Committee Procedures*—M. C. CARLISLE, M. D., Waco.
2. *Navarro Plan for Medical Representation in Community Affairs*—PAUL H. MITCHELL, M. D., Corsicana.
3. *Science Fairs in Texas*—MRS. WILLIAM D. NICHOLSON, Freeport.
4. *The Auxiliary and Public Relations*—MRS. GEORGE R. HERRMANN, Galveston.
5. *Liaison and Cooperation Between Doctors and Lawyers*—HAL V. NORGAARD, M. D., Denton.
6. *Health Education Programs*—J. COLLIER RUCKER, M. D., Jacksonville.
7. *Poison Control*—A. L. EXLINE, JR., M. D., Austin.

MR. MUNN

Introduction of Dr. F. J. L. Blasingame, Newly Appointed General Manager of the American Medical Association—DR. MILFORD O. ROUSE, M. D., Dallas.

Something for the Folks—MELVIN T. MUNN, Dallas, Director of Public Relations, Blue Cross-Blue Shield of Texas.

Evening Program, 6:30 p. m.

Hospitality Hour—Maximilian Room, Driskill Hotel. Courtesy of Charles O. Finley and Company.

Indoctrination Program

Texas Medical Association Headquarters Building, Austin
Saturday, September 7, 1957

Morning Program, 9:00 a. m.

Registration and Coffee Hour.

Call to Order—DAVID W. CARTER, JR., M. D., Dallas, Vice-President, Texas Medical Association.

An Accounting of Stewardship: What Happens to Your $50 Dues?—R. W. KIMBRO, M. D., Chairman, Board of Trustees.

Preserving Private Practice Through United Action and Positive Public Relations—C. LINCOLN WILLISTON, Austin, Executive Secretary.

Serving the Doctors of Texas—DONALD M. ANDERSON, Austin, Assistant Executive Secretary.

A Message from the President—DENTON KERR, M. D., Houston, President.

Presentation of General Practitioner of the Year—DR. HOWARD O. SMITH, M. D., Marlin, President-Elect.

The Bell Tolls—LEO E. BROWN, Chicago, Executive Assistant to the General Manager in Charge of Public Relations, American Medical Association.

Medical Economics Considerations in the Practice of Medicine—HARVEY RENGER, M. D., Hallettsville, Chairman, Council on Medical Economics.

Voluntary Prepayment Health Insurance—ROY T. LESTER, M. D., Dallas, Medical Director, Blue Cross-Blue Shield of Texas.

Luncheon, 12:00 Noon

Afternoon Program, 1:25 p. m.

Medical Ethics Considerations in the Practice of Medicine—FRANKLIN W. YEAGER, M. D., Corpus Christi, Chairman, Board of Councilors.

Legislative Issues of Medical Interest in Congress and the State Legislature—G. W. CLEVELAND, M. D., Austin, Chairman, Council on Medical Jurisprudence.

Workmen's Compensation Laws—SMITH PETTIGREW, Dallas, Medical Coordinator, Texas Employers Insurance Association.

Legal Aspects of Your Practice: Malpractice and How to Avoid It—PHILIP R. OVERTON, Austin, General Counsel.

The Case of the Doubting Doctor (motion picture).

Coffee Hour.

Introduction of Dr. F. J. L. Blasingame, Newly Appointed General Manager of the American Medical Association—DR. MILFORD O. ROUSE, M. D., Dallas.

Something for the Folks—MELVIN T. MUNN, Dallas, Director of Public Relations, Blue Cross-Blue Shield of Texas.

Evening Program, 6:30 p. m.

Hospitality Hour—Maximilian Room, Driskill Hotel. Courtesy of Charles O. Finley and Company.

★ County Societies

County Societies Report Public Relations Activities

Of 90 county medical societies in Texas whose officers replied to a public relations questionnaire, 59 are active in public service projects. These ranged from poliomyelitis inoculations to science fairs and included such activities as diabetic clinics, work with civic clubs, and school health programs. The questionnaire was sent from the Texas Medical Association headquarters in Austin.

Of the counties that replied, 64 have a public relations chairman and 26 do not. Fifty-one have active emergency call panels and 39 do not, and in answer to the question, "Does your community know this?" 55 replied "yes" and 29 replied "no." Sixty-one counties reported having an active public grievance committee. Provision of a speakers' bureau for lay programs is not a widespread activity, since 61 societies reported that they do not have one. One secretary said members of his group objected strongly to such a practice, condemning it as "cheap advertising." Only 23 respondents have planned programs for the indoctrination of new members, and only 14 provide a sponsor to guide and counsel with new physicians.

Regarding work with other groups, 68 societies reported that no special opportunities are offered for medical assistants in their area, and 20 said that these workers are organized. In 13 societies, doctors counsel with the medical assistants' groups. Most societies cooperate with the Woman's Auxiliary "in any way possible," but only 46 indicated that the auxiliary is asked to take over specific projects and give special aid to the county medical society. Sixty societies work with allied groups in their associations, and in some other societies the doctors do this type of work individually.

One section of the questionnaire was on media relations, and 77 counties stated that news outlets in the community know that interpretation of medical news can be obtained through the county society. Cooperation from newsmen on touchy medical subjects can be expected in 66 of the areas responding to the questionnaire. The president and public relations chairmen in 85 societies know the editors and at least two newsmen in the area, but only 21 societies reported that they do anything to honor these men or show appreciation for them annually. Story suggestions for newspapers are provided by county societies in 53 areas, but only 39 respondents said that they know a television representative.

Programs

Scientific programs presented before county medical societies during the past few months include:

Big Bend Counties Society—"Orthopedic Problems," W. Compere Basom, El Paso.

Cameron-Willacy Counties Society—"Gastroenteritis," M. S. Grossman, Corpus Christi; "Hematuria," M. K. O'Heeron, Houston.

McLennan County Society—"Poisoning," Milton Spark, Waco; "Treatment of Cardiac Arrest" (film), Walter B. King and James Colgin, Waco; and "Ethics," including a film, "The Medical Witness," Philip R. Overton, Austin, General Counsel for the Texas Medical Association.

Potter County Society—"Control of Venereal Disease," Allen R. Doane, Austin, State Department of Health; "Accidental Poisoning in Children," David N. Cook, Poison Control Center, Denver.

Tarrant County Society—"Addiction to Meperidine (Demerol) Hydrochloride," Robert W. Rasor, Fort Worth.

McLennan County Doctors Hear Report on Indigents

At the June meeting of the *McLennan County Medical Society,* Mrs. Irene Bohanon, Waco, spoke regarding the admission and hospital care of indigent persons in the county. She explained that persons with an income of $35 per week or less are considered indigent, and that veterans, mental patients, and tuberculosis patients could not be accepted in the county hospital since other hospitals are available for them. Mrs. Bohanon also asked the doctors' help in working out nursing plans in cases of terminal cancer.

★ District Societies

FIFTH, SIXTH DISTRICT SOCIETIES

Dr. Franklin W. Yeager, Corpus Christi, was unanimously endorsed by the Fifth and Sixth Districts Medical Society as a nominee for the office of President-Elect of the Texas Medical Association in 1958. Dr. Yeager currently is chairman of the Board of Councilors.

The endorsement was made during the annual meeting of the Society in Corpus Christi July 5-6; 225 persons were registered. Another important resolution, also passed unanimously, dedicated the meeting to Mrs. Sam E. Thompson, Kerrville, wife of the late Dr. Thompson. Mrs. Thompson said, in part, "The underlying faith and hard work of you doctors to bring such master minds together in such education not only helps you; it gives untold service to the people you serve. After all, if everyone could remember service to others, as the doctors do, there would be no wars."

Attending the Fifth and Sixth Districts Medical Society meeting were Dr. Harold Griffin, Corpus Christi; Dr. Franklin W. Yeager, Corpus Christi, Councilor for the Fifth and Sixth Districts; Dr. Denton Kerr, Houston, President of the Texas Medical Association; Dr. J. E. Miller, Dallas, special guest speaker; Dr. James L. Barnard, Corpus Christi; Dr. James C. Sharp, Corpus Christi, outgoing president of the society; and Mrs. Sam E. Thompson, Kerrville.

Dr. Denton Kerr, Houston, President of the Texas Medical Association, was a special speaker at a breakfast held July 5. Other guests included Dr. G. A. Peters, Rochester,

Minn.; Dr. V. Medd Henington, New Orleans; Dr. Louis T. Byars, St. Louis; Dr. Leroy J. Kleinsasser, Dallas; Dr. Thomas W. Mattingly, Washington, D. C.; Dr. J. E. Miller, Dallas; Dr. Lamar Soutter, Boston; and Dr. Harry M. Spence, Dallas.

A few of the topics included in the scientific program were "Dangers of Irradiation," "Dermatological Conditions of the Hands and Feet," "Cysts and Cystic Disorders of the Kidney," "Six Years from High School to M. D.," "Arterial Injuries," "Changing Concepts in the Treatment of Carcinoma of the Lung," "Unusual Causes of Heart Failure," "Drug Allergies," and "Subtotal Gastric Resection for Peptic Ulcer."

There were 10 technical exhibits at the meeting. A luncheon and style show for the ladies was held at the country club, and an open house and dinner dance were high lights of the meeting.

Officers elected for the coming year are Dr. Foy Moody, president; Dr. W. E. Riley, vice-president; and Dr. Thelma Frank, secretary-treasurer, all of Corpus Christi.

★ American Medical Association

Blasingame Named AMA Manager

Dr. F. J. L. Blasingame of Wharton, president of the Texas Medical Association in 1954-1955, member of its Board of Trustees from 1947 to 1953, and member of the American Medical Association's Board of Trustees since 1949, has been named general manager of the AMA effective January 1. Dr. Blasingame will succeed Dr. George F. Lull, who will become assistant to the President, a new position. Dr. Lull has been secretary–general manager since 1946 after being retired as a major general from the Army Medical Corps; he will continue as secretary of the AMA, an elective office.

Born in 1907 in Arkansas, Dr. Blasingame came to Texas with his family 2 years later, spending most of his boyhood in Hempstead. He was graduated from the University of Texas in Austin and then, in 1932, from the University of Texas Medical Branch in Galveston, where he has taught anatomy almost continuously since graduation, now holding the title of lecturer. He interned at Henry Ford Hospital, Detroit. He has been in the private practice of general medicine and surgery in Wharton since 1937, being a senior member of the staff and part owner of the Rugeley and Blasingame Clinic and Hospital.

A member of the Wharton-Jackson-Matagorda-Fort Bend Counties Medical Society, Eighth District Medical Society, Southern Medical Association, and United States Committee of the World Medical Association, as well as of the Texas and American Medical Associations, he is a fellow of the American College of Surgeons, president of the Blue Cross–Blue Shield plans of Texas, president of the Medical Research Foundation of Texas, chairman of the medical advisory board of the Sears Roebuck Foundation, and member of Phi Chi medical fraternity and Alpha Omega Alpha honorary medical fraternity. He was Councilor of the Eighth District from 1941 until his election as Trustee of the Texas Medical Association in 1947, and Trustee until his election as President-Elect in 1953. He became a delegate from Texas to the American Medical Association in 1944, and in 1949 (when one of the youngest physicians ever to be so honored) was elected to the AMA Board of Trustees, serving on its executive committee since 1953, heading its legislative committee for almost three years, representing the AMA at congressional hearings on numerous occasions, and being an AMA delegate to several World Medical Association assemblies.

Dr. Blasingame is chairman of the Wharton County Junior College board of trustees, a member of the Episcopal Church (and of the executive board of the Diocese of Texas), Masonic Order, and Shrine.

Dr. Blasingame and his wife, the former Miss Dorothy Rugeley, have five children.

TEXAN APPOINTED TO AMA COMMITTEE

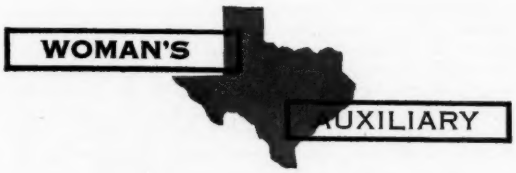
Dr. Charles T. Stone, Galveston, has been appointed a member of the American Medical Association committee to study the report of Robert Heller & Associates, a firm which made a managerial study of the American Medical Association.

Guides on Voluntary Agencies

A new "Guides to Relationships Between Medical Societies and Voluntary Health Agencies" has been published by the American Medical Association. The booklet points out the nature of voluntary health agencies, the questions that need to be answered in evaluating such agencies, the medical society's obligations to voluntary agencies, and the voluntary agency's obligations to the medical society. Copies of this booklet may be obtained from the AMA's Council on Medical Service.

Dr. Ford Gets AMA Appointment

Dr. Hamilton Ford, Galveston, has been appointed to the American Medical Association's Council on Mental Health. He will fill the unexpired term of Dr. Francis J. Gerty, Chicago.



Christmas Cards for AMEF

Peace on Earth
Good Health
Good Will to All

That is the message your Christmas cards will carry this year if you decide to use for your professional card the one the Woman's Auxiliary to the Texas Medical Association has had especially designed for doctors and their wives.

By buying your cards through the Auxiliary you not only will be choosing a greeting particularly appropriate for a physician, but you also will be helping the Auxiliary raise money for the American Medical Education Foundation.

A notation on the inside of the Christmas card explains: "This card was purchased from the Woman's Auxiliary to the Texas Medical Association to aid the American Medical Education Foundation. We hope you receive a lot like it."

The Christmas cards may be ordered in boxes of 25, and the price per box is $2.50. Cards are available now and may be ordered up to December 1 from Woman's Auxiliary to the Texas Medical Association, 1801 North Lamar Boulevard, Austin.

The Auxiliary also has available two other types of cards which you may have occasion to use.

When a death occurs, instead of flowers being sent, a donation in memory of the deceased may be made to the AMEF. When such a donation is made, a card of sympathy is mailed

Sale of this Christmas card by the Woman's Auxiliary to the Texas Medical Association will benefit the American Medical Education Foundation.

to the family saying that a gift has been made in memory of the one who has died, and giving the name of the donor.

There is also a card of appreciation which could solve the problem of how to express your gratitude to the colleague who has taken care of some member of your family. You can donate any amount you like to AMEF in his name and he will receive a card saying that you have made a donation "in appreciation."

However you use the cards, you will be helping the Auxiliary raise the ambitious sum of $20,000—which it is pledged to contribute to AMEF during the year 1957-1958. That is twice the goal set for last year.

Buy your Christmas cards from the Auxiliary, and donate to AMEF when you wish to express sympathy or appreciation. If you wish to make a gift to a particular medical school, this, too, can be done through AMEF.

With your help and support the Auxiliary will reach its goal of $20,000 for the American Medical Education Foundation.

—MRS. FREDERICK C. LOWRY, Austin.

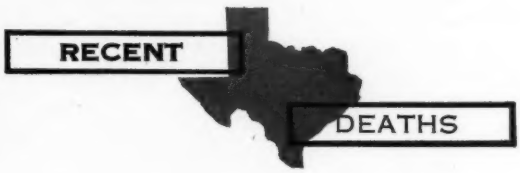
Officers of the Woman's Auxiliary to the Texas Medical Association for 1957-1958: President, Mrs. Horace S. Renshaw, Fort Worth; President-Elect, Mrs. John D. Gleckler, Denison; First Vice-President, Mrs. John H. Wootters, Houston; Second Vice-President, Mrs. J. C. Terrell, Stephenville; Third Vice-President, Mrs. Richard L. Hudson, Corpus Christi; Fourth Vice-President, Mrs. H. O. Padgett, Marshall; Fifth Vice-President, Mrs. O. N. Mayo, Brownwood; Treasurer, Mrs. William C. Barksdale, Borger; Recording Secretary, Mrs. Harold Lindley, Pecos; Corresponding Secretary, Mrs. J. Franklin Campbell, Fort Worth; Publicity Secretary, Mrs. F. C. Lowry, Austin; Parliamentarian, Mrs. Ramsay H. Moore, Dallas; Executive Secretary, Miss Hazel Casler, Austin.

School of Instruction

County auxiliary presidents and presidents-elect attending the School of Instruction to be held by the Woman's Auxiliary to the Texas Medical Association at the Association headquarters in Austin on Wednesday, September 25, will profit from the new ideas and material available for their home auxiliaries. County auxiliary treasurers and committee chairmen are urged to attend this workshop, Mrs. W. Frank Armstrong, Fort Worth, school chairman, has announced.

Discussion groups will be informal and there will be time for morning coffee, a buffet luncheon, and an afternoon coke break. That evening the group will relax for dinner around the indoor pool at the Deck Club of the Commodore Perry Hotel. Those who wish may swim.

The Executive Board of the Auxiliary, which once again includes county presidents, will meet Thursday morning, September 26, at the Association building. Mrs. Horace S. Renshaw, Fort Worth, President, will preside.



DR. HENRY J. NELSON

Dr. Henry John Nelson, general practitioner of Pasadena, Texas, died July 19, 1957, of carcinoma of the pancreas.

Dr. Nelson was born April 18, 1898, in Council Bluffs, Iowa; his parents were C. P. and Eliza (Gates) Nelson. He was educated in the public schools of Granite, Okla., and spent 1 year in Oklahoma Agricultural and Mechanical College, Stillwater, before entering the University of Oklahoma, Norman, from which he was graduated in 1928. He received his doctor of medicine degree from the University of Oklahoma School of Medicine, Oklahoma City, in 1930, and returned to Granite to begin his medical practice. He received a fellowship to study at Vanderbilt University School of Medicine, Nashville, during 1938. In 1939, he moved to Mangum, where he practiced 2 years. Dr. Nelson moved in 1943 to Pasadena, where he was in active practice until the time of his death.

Dr. Nelson was a member of the Texas and American Medical Associations through the Harris County Medical Society; he also was a member of the South Main Baptist Church. He enjoyed travel and was especially interested in scenic areas of the United States.

Miss Verne Poschen and Dr. Nelson were married in Wichita Falls on July 31, 1943. She survives, as do three children by a former marriage, Henry John Nelson, Jr., Mangum; Mrs. Betty Savage, Hayward, Calif.; and Mrs. Artelee Grant, Houston; a sister, Mrs. C. R. Hollis, Warren, Okla.; and four brothers, George Nelson, Mountain Park, Okla.; Charles Nelson, California; and Arthur and Raymond Nelson, Granite.

An obituary ordinarily will not be published more than four months after date of death. Cooperation in reporting deaths of physicians and in furnishing appropriate biographical material promptly is solicited.

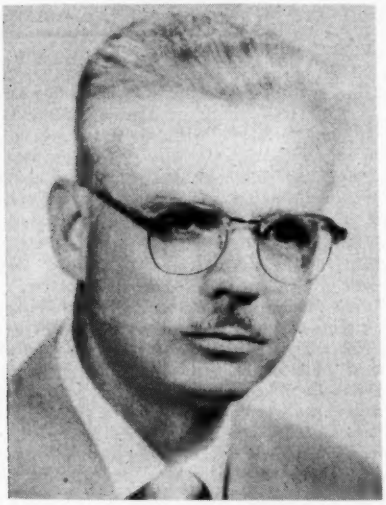
DR. WERNER F. A. HOEFLICH

Dr. Werner Franz Armand Hoeflich, Houston, Texas, died June 11, 1957, following complications after surgery some weeks earlier.

Dr. Hoeflich was born in Houston February 2, 1913, and was the son of Dr. Carl William and Dora (Werner) Hoeflich. His father died in March this year. Dr. Hoeflich attended St. Thomas High School and Rice Institute in Houston, and was graduated from Baylor University College of Medicine in 1938. He interned in Jefferson Davis Hospital, Houston, for two years and was in private practice there a year.

Dr. Hoeflich served five years in the Army Medical Corps during World War II. He was in Africa during the Tunisian Campaign, and served in Italy, Sicily, Southern France, and Germany, and was with the Second Auxiliary Surgical Group, and was anesthesiologist for orthopedic and chest teams. He was honorably discharged in 1946 with the rank of major. After his discharge, he entered residency training in anesthesiology at John Sealy Hospital, Galveston, for one year before returning to Houston. He was on the active staff of St. Joseph's Hospital, and the courtesy staffs of St. Luke's, Hermann, Memorial, and St. Elizabeth's Hospitals.

He was a member of the Texas and American Medical Associations through the Harris County Medical Society; he also



DR. WERNER F. A. HOEFLICH

was a former director for the southern area of the American Society of Anesthesiologists and a former secretary-treasurer of the Texas Society of Anesthesiologists. He was a member of the Houston Surgical Society, Houston and Galveston Societies of Anesthesiology, International Anesthesia Research Society, Catholic Physicians Guild, and St. Anne's Catholic Church. He was a diplomate of the American Board of Anesthesiology and was head of the Department of Anesthesiology at St. Joseph's Hospital.

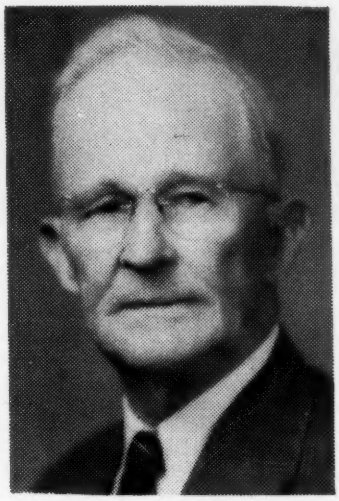
Dr. Emilia F. Austin and Dr. Hoeflich were married in Dallas in 1939. She survives, as do four daughters, Mary Ellen, 17, Caroline, 18, Nancy, 8, and Marta, 7; two brothers, C. W. Hoeflich, Jr., New York, and Dr. Bert H. Hoeflich, Eugene, Ore.; a sister, Mrs. William H. Scott, Jr., Houston; and grandfather, Theo Werner, Seabrook.

DR. J. C. CHEATHAM

Dr. James Clifton Cheatham, Wolfe City, Texas, died in a Greenville hospital May 16, 1957, of a duodenal ulcer with acute obstruction.

He was born in Donnolds, S. C., on December 3, 1876; his parents were James Haynes and Mary Alice (Seaworth) Cheatham. After attending Clemson College, in Clemson College, S. C., he entered Barnes Medical College, St. Louis, and received a license to practice medicine in 1901. In 1908, he was graduated from Barnes Medical College, and interned in St. Louis. He practiced in Rosser, Texas, one year, then moved to Wolfe City where he remained 52 years until the time of his death.

In 1953, Dr. Cheatham was elected to honorary membership in the Texas Medical Association; he was a past president and honorary life member of the Hunt-Rockwall-Rains-Delta Counties Medical Society and a member of the American



DR. J. C. CHEATHAM

Medical Association. He also was a thirty-second degree Mason and a member of the Shrine, and held life membership in, and was commander for 17 years of, the Jernigan-Turner Post of the American Legion.

During the Spanish-American War, he served in Cuba as a lieutenant with the Army Medical Corps. He reentered the service during World War I, and was a captain stationed at Camp Travis, San Antonio.

On December 16, 1903, Miss Alice Burton Coulter and Dr. Cheatham were married in Aberfoyle. Survivors other than Mrs. Cheatham are two daughters, Mrs. R. C. Burnecke, Dallas, and Mrs. H. C. England, Tivoli.

DR. CHARLES H. OTKEN

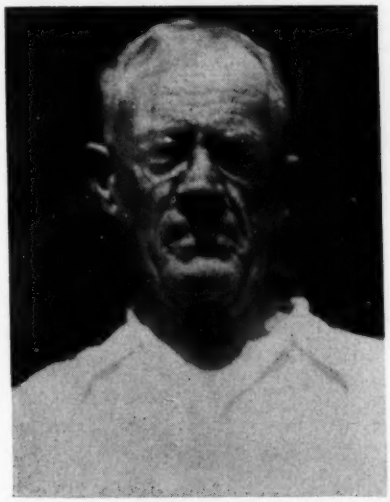
Dr. Charles Henry Otken, Falfurrias, Texas, died April 16, 1957, of acute myocardial infarction.

He was born January 3, 1878, in Summit, Miss., and was the son of Charles Henry and Emily Jane (Lea) Otken. He attended Lea College in Summit and Louisville Medical College, Louisville, Ky., and was graduated from the Chicago

College of Medicine and Surgery, Chicago, in 1909. He interned at the Frances E. Willard Hospital, Chicago, and began his medical practice in Paige, Texas, in 1910. He remained there until 1925, with the exception of a period during World War I when he served as a captain in the Army Medical Corps in Fort Oglethorpe, Ga.; Camp Leach, Washington, D. C.; and Fort St. Philip, La. In 1926 he moved to Falfurrias, where he practiced until the time of his death.

He was a member of the Texas and American Medical Associations through the Brooks-Duval-Jim Wells Counties Medical Society; he also was a member of the Baptist Church, the American Legion, and the Masonic Lodge. He was Brooks County health officer for about 20 years, and was active in the promotion of municipal health activities.

Miss Ella Olga Marosko and Dr. Otken were married June 1, 1925, in Eagle Pass. Mrs. Otken survives, as do three sons,



DR. CHARLES H. OTKEN

Henry L. Otken, Galveston; Charles C. Otken, McAllen; and Francis P. Otken, Kenosha, Wis.; one daughter, Miss Katherine Marie Otken, Houston; two brothers, Dr. L. B. Otken, Greenwood, Miss., and Lea Gidiere Otken, McComb, Miss.; and two sisters, Misses Lois and Frances Otken, McComb, Miss.

DR. M. W. SHERWOOD

Dr. Marcel Wesley Sherwood, Temple, Texas, died June 3, 1957, after a long illness.

Dr. Sherwood was born in Gainesville on June 12, 1882, and attended public schools there. He was graduated from New York University and from Bellevue Hospital Medical College in New York; in 1906 he began his internship at Bellevue Hospital, then spent one year as a ship's surgeon. He moved to Temple as surgeon for the Santa Fe Hospital, and became chief surgeon there in 1926. Dr. Sherwood became a director and co-owner of the Scott and White Hospital in 1918, and from the time of his retirement in 1950 until his death he was a governor of the Scott and White Memorial Hospital and Scott, Sherwood and Brindley Foundation.

He had been a member of the Texas and American Medical Associations for many years through the Bell County Medical Society, and was elected to honorary membership in the state group in 1952. He also had served as secretary of the Section on Surgery in 1918 and 1928; chairman in 1935; secretary of the Section on State Medicine and Public Hygiene in 1920; and secretary of his county society in 1928 and presi-

DR. M. W. SHERWOOD

dent in 1932. He was awarded a certificate of merit jointly with Drs. A. C. Scott, Sr., and G. V. Brindley for having one of the best scientific exhibits at the 1936 annual session of the Texas Medical Association. He also was one of the founders of the American Board of Surgery, a member of the Texas Surgical Society, and a fellow of the American College of Surgeons. He had traveled in Europe in 1931 and visited surgical clinics in Germany, Italy, Austria, and England.

He is survived by his wife, the former Miss Clarissa Holderman, Temple; a daughter, Mrs. Lon V. Porter, Houston; and two grandchildren.

DR. JOHN E. QUAY

Dr. John Edward Quay, Waco, Texas, died April 21, 1957, in San Antonio, following a cerebral hemorrhage.

Dr. Quay was born June 23, 1890, in Waco, and was the son of S. J. and Fannie (Mahon) Quay. He attended public schools in Waco and received his bachelor of arts degree from Baylor University there in 1912. He studied at Vanderbilt University School of Medicine, Nashville, and was graduated from the University of Pennsylvania School of Medicine, Philadelphia, in 1917. Dr. Quay's internship was in the Episcopal Hospital and Kensington Hospital for Women in Philadelphia, and he was assistant surgeon at Mayo Clinic, Rochester, Minn., for two years.

Dr. Quay was a veteran of World War I, during which he worked with Dr. Harvey Cushing in a neurological unit, and practiced medicine in Waco from 1921 until 1933, when he was recalled to active duty with the Army Medical Corps at Brooke Army Hospital. He retired in 1946 with the rank of colonel.

He was a member of the Texas and American Medical

DR. JOHN E. QUAY

Associations through the McLennan County Medical Society; he also was a member of the Texas Traumatic Surgical Society and the Association of Resident and Ex-Resident Physicians of Mayo Clinic, Waco Chamber of Commerce, Lions Club, and First Presbyterian Church.

He was married June 23, 1920, in Wetmore, Kan., to Miss Mary Isabella Thornburrow. Survivors include Mrs. Quay; two sons, Major John Edward Quay, Jr. and S. David Quay; a sister, Miss Mabel Quay; and three grandchildren, all of Waco.

DR. J. T. HUTCHINSON

Dr. James Thomas Hutchinson, Lubbock, Texas, died of nephrosclerosis and uremia June 22, 1957. He was elected to honorary membership in the Texas Medical Association in 1950.

Dr. Hutchinson was born September 13, 1880, in Annona, Texas, and was the son of Nelson Bailey and Vorena (Gause) Hutchinson. He received his medical degree at Tulane University School of Medicine, New Orleans, in 1909, and later took postgraduate work at Tulane; University of Pennsylvania School of Medicine, Philadelphia; and Harvard University Medical School, Boston. He practiced briefly in Clarksville and Madras before moving in 1909 to Lubbock, where he was in general practice 4 years before specializing in ophthalmology and otolaryngology. Dr. Hutchinson retired from practice in 1954.

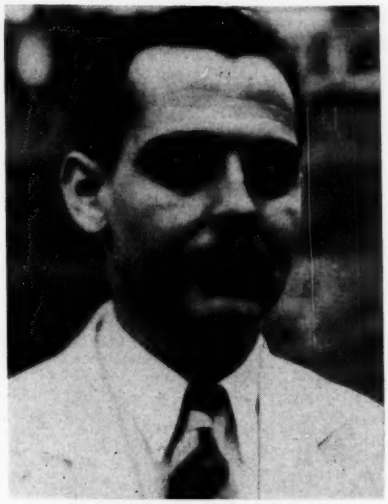
He was a member of the Texas and American Medical Associations through the Lubbock-Crosby Counties Medical Society, and was president of the latter group in 1938. He also was a past president of the Third District Medical Society and an honorary member of the Texas Society of Ophthalmology and Otolaryngology, of the medical staff of Methodist Hospital, and of Rotary International. He was a thirty-second degree Mason, and had been active in his Masonic Lodge for more than 50 years. He served as chairman of the board of trustees of the Lubbock public schools for 33 years. Dr. Hutchinson's hobbies were birds and flowers.

In 1918, he served as a first lieutenant in the Army Medical Corps, and was stationed at Fort Oglethorpe, Ga.

Miss Ione Moseley and Dr. Hutchinson were married December 2, 1903, in English. Survivors include Mrs. Hutchinson, two sons, Dr. Ben B. Hutchinson and Tom Hutchinson, daughter, Mrs. Frank W. Hudgins, all of Lubbock; and three sisters, Mrs. Roma Shraf, Mrs. Vida Shoaf, and Mrs. Nola Fires, all of Quitman.

DR. G. E. BITTENBENDER

Dr. Glace Edward Bittenbender, Jackson, Miss., died of cancer April 15, 1957, in the Veterans Administration Hospital, Houston, Texas. He was a former associate professor of anesthesiology at Baylor University College of Medicine, Houston, and chose to return to Houston during his final illness.



DR. G. E. BITTENBENDER

Son of Mr. and Mrs. Edward Bittenbender, he was born March 2, 1912, in Nescopeck, Pa., and was graduated from public schools there. He received his bachelor of arts degree from New York University in 1940 and was graduated from New York University School of Medicine in 1943. He interned in Strong Memorial Hospital, Rochester, N. Y., and after taking time out to serve as a captain in the Army Medical Corps three years, he returned to Rochester for another year's work. He then completed one year of surgical residency at the University of Virginia Hospital, Charlottesville, and two years of anesthesiology residency at Charity Hospital, New Orleans, and became associate director of anesthesiology at Charity Hospital. In 1953, he moved to Houston where he taught, served as director of anesthesiology at the Veterans Administration Hospital there, as chief consultant in anesthesiology for St. Joseph's Hospital, and as attending anesthesiologist at the Texas Children's Hospital. In 1955, Dr. Bittenbender moved to Jackson, where he was professor of anesthesiology at the University of Mississippi Medical Center and director of anesthesiology at the new University Hospital.

He was a member of the Texas and American Medical Associations through the Harris County Medical Society during the time he was active in Texas, and when he moved to Mississippi he became a member of that state's medical association. He also was a member of the Society of University Anesthesiologists and Mississippi Society of Anesthesiologists, and was a diplomate of the American Board of Anesthesiology, a member of the board of governors of the American

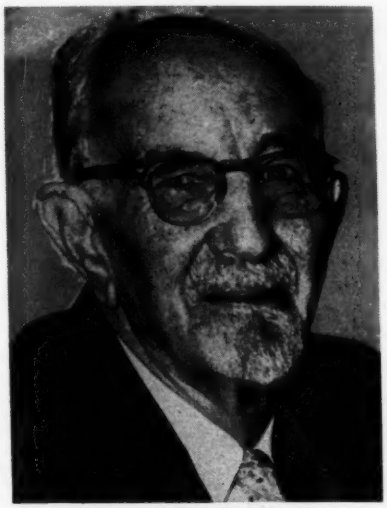
College of Anesthesiologists, recently resigned chairman of the Section on Anesthesiology of the Southern Medical Association, and an honorary member of the American Society of Anesthesiologists. He also was a member of the First Methodist Church of Nescopeck.

He is survived by his parents; a sister, Mrs. Dale Sitler; and two nephews, all of Nescopeck.

DR. J. O. WHARTON

Dr. James Osman Wharton, a general practitioner in McAllen, Texas, for more than 50 years, died May 27, 1957. He was a 1953 nominee for the Texas Medical Association's General Practitioner of the Year Award.

Born in Russellville, Ark., on October 15, 1879, Dr. Wharton was the son of a general practitioner. The family moved to Indian Territory, now near Duncan, Okla., when Dr. Wharton was 11 years old, and most of his preliminary education was obtained there. He then attended Memphis Hospital Medical College, Memphis, Tenn., for two years, and was graduated in 1906 from the Physio-Medical College of Texas, Dallas. His class was the last to graduate from that school. His first three years of medical practice were spent in Chickasha, Okla.; he returned to Duncan in 1910 to take over his father's practice. The following year, he served on



DR. J. O. WHARTON

the Oklahoma State Board of Medical Examiners, and from 1915 until 1918 was the city health officer. He helped to open the first hospital in Duncan, and served as secretary and president of the Stephen County Medical Society there. In 1922, Dr. Wharton took postgraduate work in pediatrics in Dallas, and moved in 1925 to McAllen, where he remained in active practice until the time of his death. He did much to lower the infant mortality rate in that area, which previously had been the highest in the nation. Both as city health officer and as consulting physician at the McAllen Child Clinic, a charity institution which he helped to found, he gave a great deal of his time to work with underprivileged children.

He was a member of the Texas and American Medical Associations through the Hidalgo-Starr Counties Medical Society, which he served as president in 1932. He also was a member of the Southern Medical Association and the American Academy of General Practice.

Survivors include Mrs. Wharton, McAllen; three daughters, Mrs. E. H. Duke and Miss Marianne Wharton, McAllen, and Miss Kathleen Wharton, Washington, D. C.; and four grandchildren, Wharton, Martha, Shannon, and Kathleen, all of McAllen.

DR. HORACE B. ROSS

Dr. Horace Benjamin Ross, pioneer general practitioner in Del Rio, Texas, died at his home June 10, 1957, of arteriosclerotic heart disease.

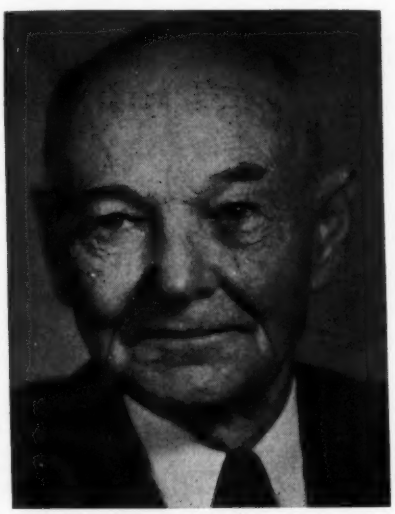
Born December 12, 1868, in Coffeeville, Miss., Dr. Ross was the son of Stephen M. and Zuliema B. Ross. After being graduated from Atlanta Medical College, Atlanta, Ga., in 1895, he began his practice in Del Rio, where he was active for 52 years before his retirement in 1948.

He was elected to honorary membership in the Texas Medical Association in 1945 after having been a member continuously since 1904 through the Nine Counties Medical Society. Dr. Ross was an organizer and charter member of this group, and held all the offices at various times. He also had served as city health officer for Del Rio and county health officer of Val Verde County. He was surgeon for the Southern Pacific Railroad, and from 1909 until he retired he was acting assistant surgeon of the United States Public Health Service. His duties included the examination of aliens entering the United States through the Del Rio port of entry.

A member of the Christian Church, Masonic Order, Rotary International, and Kiwanis Club, Dr. Ross also was active in civic drives such as for Red Cross. He was a staunch and active Democrat. He was a director of the Del Rio Wool and Mohair Company and had been a member of the board of directors of the First National Bank. Throughout the years he was interested in ranching and at one time raised fine Arabian horses. He also liked to fish and hunt.

Dr. Ross and Miss Dade Frances Wilkinson, Temple, were married April 28, 1903. She died January 2, 1933.

Survivors include a daughter, Mrs. Frances Ross Whyte, San Antonio; two sisters, Mrs. M. Z. Merrill, Long Beach,



DR. HORACE B. ROSS

Calif.; and Mrs. Dave McLymont, Douglas, Ariz.; a brother, Ulric Ross, Del Rio; two grandsons, James Ross Sanders and Joe Lucien Sanders, Del Rio; and several nieces and nephews, including Dr. Rex R. Ross of San Antonio.

DR. WILLIAM CLAIBORNE BROWNE

Dr. William Claiborne Browne, Dallas, Texas, died at his home May 15, 1957, of a heart attack.

He was born January 15, 1874, near Gatesville, and was the son of Crockett M. and Margie (Key) Browne. The family moved to Brownwood a few years later, and Dr. Browne received his early education in the public school there. He joined the army at an early age in the hope that he would get to study medicine, and he was assigned to a cavalry regiment at Fort Bliss. Soon he became acquainted with the doctor in command of the army hospital, who ordered his medical books from Germany and tutored Dr.

DR. WILLIAM CLAIBORNE BROWNE

Browne in medicine. During the Spanish-American War, Dr. Browne was a noncommissioned officer in the medical corps, and was in command of an army hospital on the Texas-Mexico border where a skeleton force was maintained. Following his discharge, he finished courses in pharmacy and nursing, then entered the Fort Worth University Medical College, and was licensed to practice in Texas one year later. He also attended the University of Louisville College of Medicine, and was graduated from the University of Nashville Medical Department, Nashville, Tenn., in 1906. In 1911, he had studied at the Eye, Ear, Nose, and Throat Hospital, New Orleans, and in 1913 had done postgraduate work at Presbyterian and Cook County Hospitals, Chicago. Dr. Browne practiced a few years in Britton, then moved to Midlothian, where he remained until the outbreak of World War I. He was physician for the Santa Fe Railroad there. He volunteered his services, and was in France with some of the first American forces there; he held the rank of captain. He stayed in Paris after the war to take a postgraduate course, and when he returned to New York he took further postgraduate study at the New York Postgraduate Hospital. In 1920, Dr. Browne moved to Dallas, where he practiced until his retirement about three years ago.

He was a member of the Dallas County Medical Society, American Medical Association, and Texas Medical Association, to which he was elected to honorary membership in 1948. He was on the staff of the Parkland Memorial Hospital in Dallas, and was a member of the Christian Church.

He was married in Midlothian December 21, 1905, to Dell Evelyn Lawrence; she preceded him in death April 29, 1951.

Survivors include a daughter, Mrs. Mike O'Daniels, Honolulu, Hawaii, and a sister, Mrs. J. D. Caldwell, Dallas.

DR. J. R. WAGNER

Dr. Joseph Ralph Wagner, pioneer physician of Palacios, Texas, died of cerebral thrombosis May 28, 1957, in a local hospital.

Dr. Wagner was born May 16, 1870, in Newman, Ill.; his parents were Dr. John Marquand and Sarah Ellen Wagner. He was educated in public schools in Newman, then attended a small college in Bloomington, Ill. He was graduated from Rush Medical College, Chicago, in 1895 and began practicing in Newman, but moved in 1906 to Palacios, where he practiced until his retirement in 1952.

Dr. Wagner was a member of the Texas and American Medical Associations through the Wharton-Jackson-Matagorda-Fort Bend Counties Medical Society, which he served as president in 1935. He also was city health officer of Palacios for 39 years, and had been a Mason for 67 years, becoming one at the age of 20 by special dispensation. He was a charter member of the Palacios Rotary Club, a member of the Presbyterian Church, and a former member of the local school board.

DR. J. R. WAGNER

The former Miss Minnie Isabell Shaw, Dr. Wagner's first wife, died in 1911. His second wife, the former Mrs. Emylee Bonner, whom he married in 1918, survives. Other survivors are two daughters, Mrs. Carl Nelson, McAllen, and Mrs. Roy Bell, Houston; a son, John T. Wagner, San Francisco; a stepdaughter, Mrs. Timothy C. Williams, Washington, D. C.; a stepson, John H. Bonner, Houston; three sisters, Mrs. Henly Eversole, Phoenix; Mrs. C. F. Voyles, Indianapolis; and Mrs. O. M. Sherman, Kansas City; and one brother, John Dwight Wagner, Chicago.